



**EXPORT CABLE INSTALLATION SEA DEFENCE BREACH AND
REINSTATEMENT
RACE BANK OFFSHORE WIND FARM, NR. SUTTON BRIDGE, NORFOLK**

FLOOD RISK ASSESSMENT

FOR

DONG ENERGY (UK) LTD

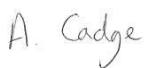


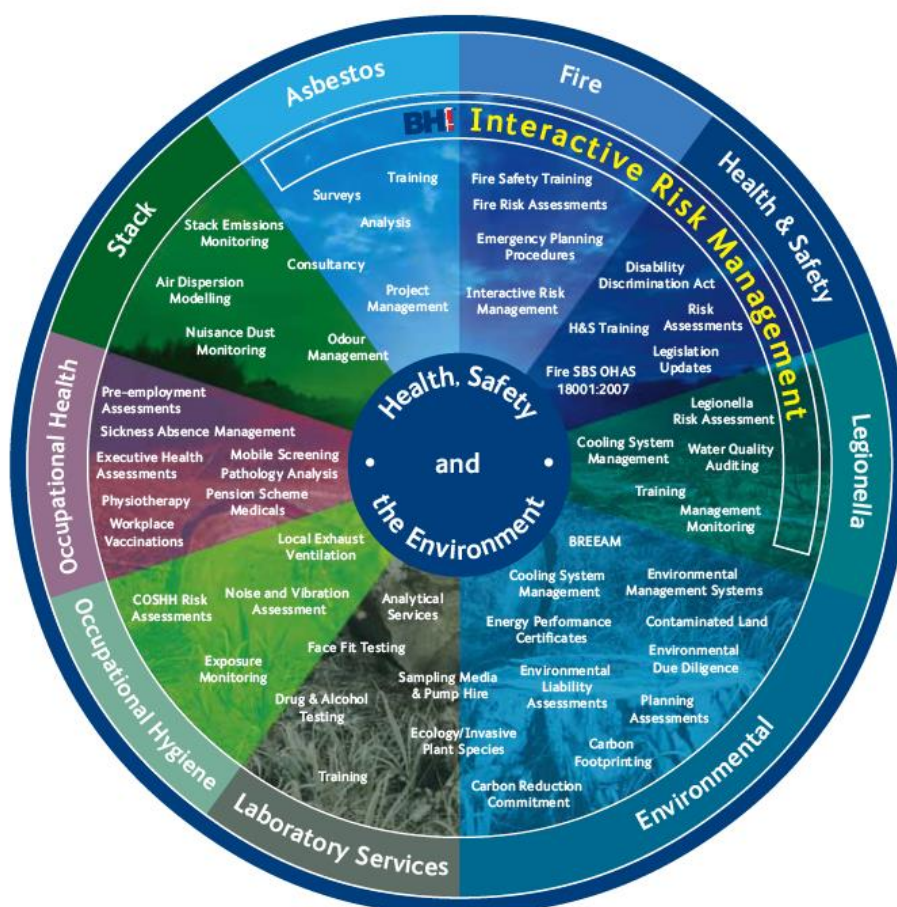
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RPS Health, Safety & Environment
14 Cornhill
London
EC3V 3ND

Tel: 020 7280 3200
Email: rpslon@rpsgroup.com

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	Name:	Signature:
Report Author:	Sarah Demetriou	
Technical Reviewer:	Alison Cadge	
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EXECUTIVE SUMMARY

Report Summary:

The proposal comprises the engineered breach and reinstatement of primary sea defences for the laying of two export cables associated with Race Bank offshore wind farm. The proposed installation of the cables involves the lowering of the primary sea defences to a platform level of 5.15m AOD for a period of approximately 61 days and excavating to a trench level of 2.3m AOD for a total of 9 of those days.

The area south of the proposed breach location, including the proposed construction compound, is in Flood Zone 3 but benefits from a 1 in 150 year standard of protection from the tidal flood defences. During the temporary lowering of these defences, construction workers and equipment will be subjected to a decreased standard of protection. Modelling undertaken by the Environment Agency (EA) indicates that for a breach of defences during a 1 in 200 year tidal event, flooding of depths greater than 2m could be expected in Field 1, the location of the construction compound. Due to the presence of secondary defences along the southern boundary of Field 1, a breach of defences is not expected to increase flood risk beyond the secondary defences (i.e. there will be no increased risk to properties or people within the wider area, beyond the extent of Field 1).

To manage the additional risks during this temporary period, mitigation measures will be in place. Proactive measures will include monitoring of available tide, forecast and storm data. Material will be stored to raise or reinstate defences if deemed necessary upon receipt of a Flood Warning from the EA. Residual risk to site workers will be mitigated through the implementation of a Flood Emergency Response Plan which will determine safe access and egress routes from the site to an area of safe refuge for all workers.

Following the reinstatement of the primary flood defences to their original state, all cables will be below ground level and therefore not at risk from any future flooding. There will be no long-term increase in flood risk off site as a result of the proposed works, upon completion of the cable laying exercise.

In order to mitigate against any increase in surface water runoff rates from the temporary construction compound, it is proposed to incorporate temporary drainage measures, such as a swale / detention basin, to contain runoff on-site prior to discharge to the existing drainage network.

It has been demonstrated that the development meets the Sequential and Exception Tests imposed under the NPPF.

Overall, it has been demonstrated that the increased tidal flood risk during the proposed breach of the defences is sufficiently mitigated, and that the overall scheme meets the requirements of the NPPF.

1 INTRODUCTION

RPS was commissioned to undertake a Flood Risk Assessment (FRA) for the proposed engineered breach and reinstatement of primary sea defences for the laying of two marine export cables in association with Race Bank Offshore Wind Farm.

The aim of the FRA is to outline the potential for the site to be impacted by flooding, the impacts of the proposed scheme on flooding in the vicinity of the site, and the proposed measures which could be incorporated into the development to mitigate the identified risk. The report has been produced in accordance with the guidance detailed in the National Planning Policy Framework (NPPF) and the associated Planning Practice Guidance (PPG).

The site is located just north of King's Lynn Internal Drainage Board (IDB) District (the IDB has not been consulted).

The desk study was undertaken by reference to information provided / published by the following bodies:

- EA
- British Geological Survey (BGS)
- Ordnance Survey (OS)

2 SITE DESCRIPTION AND SETTING

2.1 Site Description

The site is located to the north of Sutton Bridge at National Grid Reference TF 50642 26551. A location plan showing the proposed works is provided in Appendix A, Figure 1.

The application site comprises a section of the primary sea defence embankment and drainage ditch, and a linear route through an agricultural area known as Field 1 to the landward side of the primary defences. A construction compound, used for the storage of materials, machinery and office and welfare facilities will also be located in Field 1.

2.2 Hydrological Setting

The site comprises a section of the primary sea defences. The existing level of these embankments at the location of proposed works has been provided by a recent topographical survey by DONG Energy (ref: LSTC Onshore Topographic Survey, 2014). The defences range from levels of 7.70m AOD in the west of site (cable alignment 1) to 7.80m in the east (cable alignment 2). A secondary flood defence is located approximately 400m south of the proposed breach location, comprising an embankment measured at 6.15m AOD which marks the southern boundary of Field 1.

Two surface water drains are located on the landward side of the coastal defences. One runs north-south along the eastern boundary of Field 1, and the other runs east-west immediately behind the coastal defences. These drains ultimately discharge into The Wash.

The nearest main river is the River Nene, 2km west of the site. The River Nene flows in a northeasterly direction and is tidally influenced. It discharges into The Wash, to the north of the defences.

2.3 Hydrogeological Setting

According to BGS mapping, the site is underlain by Tidal Flat Deposits, comprising sand, silt and clay. These deposits are underlain by the Ampthill Clay Formation, comprising mudstone.

EA mapping indicates that the site overlies a Secondary (Undifferentiated) Aquifer relating to the Tidal Flat Deposits. These formations have varying characteristics in different locations. Given the coastal location, it is likely that shallow groundwater is present within the superficial deposits.

3 PROPOSED DEVELOPMENT

3.1 Description of Development

The proposal relates to the proposed sea defence breach and reinstatement to allow the placement of two marine export cables for the Race Bank offshore wind farm. The two export cables are proposed to cross the Wash and North Norfolk Coast European Marine Site beneath the existing primary sea defences and travelling underneath the drainage ditch on the landward side before passing through Field 1 to the Transition Joint Bay (TJB). The proposed development plans are given in Appendix B and the development is described in full in a report by Mott MacDonald completed in January 2016 (Sea Defence Breach & Reinstatement - Consent Application Study Report).

For the laying of the export cables, the proposed method requires the installation of sheet piled walls prior to open excavation of the drainage ditch and sea defences. Initially, sheet piling will be installed across the drainage ditch before excavations commence. Once the ditch has been excavated, the installation process requires the lowering of the sea defences to two different levels. A level piling working platform will be created by removing the top 2.55m of the sea defences, lowering the defences to a level of 5.15m AOD (platform level). From this level, sheet piling will be installed to allow excavation of the trenches. After the installation of the sheet piled walls, excavation will take place between the piles to create a trench to a level of 2.3m AOD (trench level) for the laying of the cables. Cables will be laid to this depth, 1.5m below the toe of the defences, to ensure the EA have maintenance access to the defences and if required, can enable works to the sea defences in the future to allow for climate change.

The eastern trench will be dug, and cable lain (cable alignment 2), prior to the laying of the western cable (cable alignment 1). After installation of the first cable, the trench will be temporarily reinstated to platform level and a temporary flood defence deployed to raise defence levels to 7.7m AOD until operations commence for the second cable laying. It is anticipated the first and second cable laying operations will be separated by 33 days whilst waiting for appropriate tide levels.

The initial breach of defences for the piling platform will be approximately 30m wide at the crest of the defences and 15m at platform level. Excavation for each cable will consist of a trench approximately 2m wide at the base with one side of the excavation sloped at 1 in 3 leaving a 6m wide bund at platform level on the seaward side to allow for the installation of temporary flood defences if required while the cable is laid across The Wash. This will be done to reduce the time for which the defences will be lowered to trench level. Once the cable laying barge reaches the defences, the 6m bund will be lowered to trench level and the cable installed.

RPS understands that the defences will be lowered to trench level for a total of 4.5 days for each cable installation. The defences will be breached to at least platform level (5.15m AOD) for a total of 61 days.

Following the installation of the cables, the sea defence embankment will be reinstated through compacting layers of original and compliant fill material prior to the restoration of the drainage ditch. During the excavation to platform and trench level, in situ and laboratory testing to determine the moisture content, bulk density and shear strength of the current material will take place. Additional fill required for reinstatement must meet or exceed the baseline limits of the existing ground. Piles installed throughout the works will not be removed but will be cut to 4.2m AOD to maintain a minimum of 1m clearance between piles and defence level.

A temporary construction compound located to the south of the defences, in Field 1, will accommodate offices, welfare facilities and storage for materials and machinery required for drilling. The site and compound will be accessed from East Bank road which runs north alongside the River Nene from Sutton Bridge to the mouth of the river. From here, vehicles will travel east through a secure gate and along a single track lane to the boundary of Fields 1 and 2. Access ramps on to the defences, once modified for safe movement of plant, will allow materials and machinery access to the top of the primary sea defences for excavation from the landward side of the defences.

The proposed breach and reinstatement works must comply with the Marine Management Organisation licence consent window for all works in the inter-tidal area, between May and August. The proposed dates for the breach works are between 20th April and 23rd June 2016.

The proposed cable route is classified as 'essential infrastructure' within Table 2 of the Planning Practice Guidance to the NPPF.

4 CONSULTATIONS & REGULATORY INFORMATION

4.1 Environment Agency

The EA flood map (available online) indicates that the site is located within Flood Zone 3, whereby the annual probability of flooding from tidal sources is classified as greater than 1 in 200. The EA Flood Map is provided in Appendix A, Figure 2.

The EA was consulted for site-specific data to clarify the flood risk to the site. The information provided by the EA is provided in Appendix C. Key information of relevance to this assessment is summarised below:

- The EA hold no records of historical fluvial or tidal flooding in the area of the site.
- The site benefits from tidal defences, in the form of earth embankments, to a 1 in 150 year standard of protection. These are in 'good' condition.
- The EA have provided modelled breach and overtopping data for a location approximately 320m west of the proposed breach location. For a current 1 in 200 year breach event, maximum flood depths of greater than 2m are shown in Field 1 with a hazard rating of 'Danger for All'. For a current 1 in 200 year overtopping event, depths of less than 0.025m are shown in Field 1, corresponding with a 'Low Hazard' rating.
- Still water tidal levels were provided from Tidal Model Analysis, 2006. Predicted tidal levels for the node closest to the site, West Lighthouse, are included in the table below.

Modelled tidal levels in m AOD						
1 in 1 year	1 in 10 year	1 in 25 year	1 in 50 year	1 in 100 year	1 in 200 year	1 in 1000 year
4.88	5.37	5.57	5.71	5.83	6.01	6.35

The EA Risk of Flooding from Surface Water map (available online) indicates that the site is at a 'very low' risk of surface water flooding. This corresponds with an annual probability of flooding that is less than 1 in 1000. Several small areas within Field 1 are indicated to be at a 'low' risk of surface water flooding, whereby the annual probability of flooding is greater than 1 in 1000 but less than 1 in 100. Although very limited areas are shown to be at a higher risk, these correlate with surface water drains.

EA mapping also indicates that the application site is not located within an area potentially at risk from reservoir flooding.

4.2 Local Authority

The South Holland District Council Strategic Flood Risk Assessment (SFRA) Update was published in January 2010. It provides an overview of flood risk from various sources within the Borough. Information of relevance to this assessment is summarised below:

- Earth embankment defences are located around The Wash area. Secondary defences are also present, dividing the land immediately behind the primary tidal defences into a series of 'cells'. Therefore, if overtopping or breaching of the primary defences occurred, water would initially be contained within the respective cell behind the primary defence. Further breaching would only occur in an extreme flood event. The secondary defences are owned by the respective landowners and not the EA. Flood defences in the vicinity of the site are considered to be in '2 – good' condition.
- Modelling was undertaken of the peak 1 in 200 year and 1 in 1000 year tidal levels, including the effects of climate change up to the year 2115. The maximum flood levels for the area of the site (cells W14 and W15) are given in the table below. The maximum flood levels are the same for both cells (variation is only in the order of a maximum of 2cm).

	Modelled flood levels in m AOD	
	1 in 200 year	1 in 1000 year
2007	6.01	6.35
2055	6.21	6.68
2115	7.03	7.49

- Within cell W14 flood defences are stated to have a crest level of between 7.50m AOD and 7.95m AOD. In cell W15, flood defence crest levels vary between 7.12m AOD and 7.72m AOD. The defence levels are therefore all at least 0.77m higher than the present day peak 1 in 1000 year water level. However, the SFRA has a requirement for defence levels to include a 'freeboard' (safety allowance) above the flood level to allow for wave action coincident with extreme water levels. In view of this, the defences within cell W14 are not considered within the SFRA to have the required freeboard for the present day 1 in 200 year event to ensure their structural integrity. The SFRA states that 'the inclusion of a margin of safety in the assessment means that, in practice, a defence may well withstand a flood event of greater magnitude than the defence standard assigned to it'.
- A 200m wide breach to the base of the defences was modelled approximately 750m east of the site. Given that there is insufficient freeboard is provided in this cell, the risk of a breach is

considered an Actual Risk, with flooding of depths over 1.5m shown in Field 1. No flooding is shown in the fields to the south of Field 1 due to the presence of secondary defences.

- Taking into account the presence of defences (and on the basis that the appropriate freeboard is not provided for the defences in cell W14), the area on the landward side of the coastal defences (including Field 1) is classified as at a 'high' probability of flooding (see Appendix B). This corresponds to an annual probability of greater than 1 in 200 (from the sea). The depth of flooding is modelled as greater than 1.5m during a 1 in 200 year event. It is also within the rapid inundation zone (where floodwater could reach a depth of 0.3m within 30 minutes of a breach or overtopping). However, the velocity of floodwater would be low (less than 0.1m/s).
- The SFRA states that if extensive flooding did occur in the District it would probably take many days for the flood water to be drained away through the IDB outfalls.
- The defences on the River Nene provide a 1 in 200 year standard of protection.
- The Environment Agency provides a tidal flood warning service covering The Wash and tidal Nene.
- Significant flooding was recorded in the area during the 1953 storm surge.
- The IDB indicated that watercourses they maintain have on average a 1 in 100 year standard of protection in urban areas and a 1 metre freeboard / 1 in 20 year standard of protection in agricultural areas.
- As part of the SFRA Anglian Water provided a list of locations where sewer flooding problems had been experienced. However, these were generally minor isolated cases and not considered significant in the overall context of the report.
- There have been no reported incidents of groundwater flooding within the district and therefore it is not considered to be a significant source of flooding.

5 ASSESSMENT OF FLOOD RISK

The key sources of flooding that could potentially impact the site are discussed below:

5.1 Fluvial / Tidal Flooding

Fluvial and tidal flooding refers to flooding from surface watercourses and their tributaries, estuaries and the sea. EA mapping indicates that the site is located within Flood Zone 3, whereby the annual probability of fluvial flooding is classified as greater than 1 in 100 and the annual probability of tidal flooding is classified as greater than 1 in 200. The flood risk to the site is predominantly from tidal sources, although there is also a risk of localised fluvial flooding from the drainage channels behind the coastal defences and from the River Nene.

Although the EA regard the flood defences to provide a 1 in 150 year standard of protection, the current level of flood defences is 7.70m AOD which is 1.35m greater than the EA modelled 1 in 1000 year tidal level. Similarly, information within the SFRA indicates that the raised primary coastal defences are at least 0.77m higher than the present day 1 in 1000 year tidal flood level. This suggests a significant standard of protection afforded by the primary defences. However, the SFRA considers the defences to provide a less than 1 in 200 year standard of protection due to insufficient 'freeboard' (safety factor) between the crest level and the flood level. RPS notes that the SFRA accepts that this is a cautious approach which may underestimate the standard of protection afforded by the defences.

The site compound and workers are therefore considered to be sufficiently protected against tidal flooding prior to the engineered breach and after reinstatement of the defences. During the breach of defences however, the site compound and workers will be exposed to a reduced standard of protection from tidal flooding. EA modelling shows that Field 1 could be inundated with flood depths greater than 2m during a 1 in 200 year event given a breach of primary defences however the size of the breach has not been specified for this model. The SFRA indicates that in the event of a breach of primary defences, with a hypothetical breach larger than the proposed breach, during a 1 in 200 year tidal event flood water is contained within Field 1 at depths greater than 1.5m.

The engineered breach will be at two levels, initially to a level of 5.15m AOD for the piling platform from which the cable trenches will be excavated. Although the proposed trench excavation is to a level of 2.3m AOD, given the excavation profile (see Appendix B), the ground level on the seaward side of the defences will be higher, approximately 4.2m AOD. The minimum level of flood defences during construction is therefore considered to be 4.2m AOD for a maximum period of 9 days in total. The defences will be lowered to 5.15m AOD for a period of 61 days.

Although tidal levels during the period of the proposed breach are predicted to be less than 4.2m AOD and therefore below the lowered level of the defences (minimum seaward level of 4.2m AOD) at all times, extreme tidal surges could result in higher water levels than predicted. Given the temporary duration of construction work, the likelihood of an extreme tidal event in this period is considered to be low, however mitigation measures will be based on close monitoring of forecasts and tide predictions and will mitigate against the eventuality of a tidal surge. These measures are outlined in the section below.

In addition to the proposed mitigation measures below, the residual risk to construction workers will be managed through a Flood Evacuation Plan. This will be based on the tide timetables and the EA's Flood Warnings Service and will be agreed with the South Holland District Council emergency planners, to establish safe access and egress routes and ensure that at times of extreme tides or high river levels personnel are evacuated from the site and equipment is moved to a safe area. This will include any workers in the fields nearby unrelated to the breach works. SFRA modelling shows no flooding south of Field 1 during a 1 in 200 year event given the presence of secondary defences. It is therefore considered that this could be an area of safe refuge if a peak tidal event was to coincide with the engineered breach of primary defences and Field 1 was inundated.

Following reinstatement of the defences, the cable will be entirely below ground, therefore there will be no fluvial / tidal risk to the permanent infrastructure. There will be no loss of floodplain storage or obstruction to flow routes as a result of the permanent infrastructure (given that it will be located entirely below ground). Given the depths of the cables below defences, the installation of the cables will not impact on long term maintenance of the primary sea defences. Any future maintenance works to the cable itself can be scheduled around times of high tide, and with the residual risk managed through a Flood Evacuation Plan and Emergency Flood Response Plan (EFRP) (similar to that prepared for the construction phase).

Proposed Mitigation

The following proactive measures are proposed to mitigate flood risk during the proposed breach of primary defences:

- The following real-time data and forecasts will be monitored and reactive measures taken if deemed necessary:
 - Monitoring of surge predictions at Cromer, Kings Lynn and Boygrift at least every 12 hours. Predicted surge heights and times will be considered in relation to the predicted high water heights and times at the site.
 - Real-time sea level data will be monitored.
 - Monitoring of weather warnings and forecasts will take place at least every 24 hours.

- Emergency practices will be carried out to drill staff on protocol and test the efficiency of delivering reactive measures.
- A baseline defence line will be in continuous deployment raising defence levels to between 4.2m AOD and 5.15m AOD after the initial piling is completed. This will be the Quick Wall High (detailed below).
- During the 33 day period between cable laying, temporary defences will be instated to 7.7m AOD.

In addition to the baseline defence line, two other reactive measures will be ready for rapid deployment if required. Enough backfill material will be stored in the construction compound to reinstate the trench level back to platform level (Reactive Measure 1, RM1). Additionally, materials will be stored to create a temporary flood wall, the Quick Wall High system by UK Flood Defences Ltd. Enough pre-filled impermeable bags will be stored in the site compound to create a temporary flood defence up to at least 7.7m AOD (Reactive Measure 2, RM2). According to UK Flood Defences Ltd, the wall can be assembled in up to 5 minutes per linear metre.

Given the potentially significant depth of flooding in the vicinity of the construction compound in the event a peak tidal incident occurs during the engineered breach, it is not considered practical to bund or raise the construction compound above the modelled flood level. It is considered more appropriate to manage the risk to construction workers and construction equipment through the measures outlined above. As a further level of mitigation, any cabins within the site compound in use by workers will be raised at least 300mm above existing ground levels.

A site-specific flood warning system will be set up by the EA for use throughout the proposed works. If needed, the EA will issue one of three levels of flood warning based on predicted tide times. The Contractor will then determine appropriate reactive action based on the level of warning from the EA and in accordance with the EFRP which has been prepared for the site. This specifies that if predicted tides exceed 3.4m AOD, sea defence works will cease and backfilling of the trench level to platform level (RM1) will commence if deemed necessary. Upon receipt of a Severe Flood Warning when predicted tide levels meet or exceed 4.65m AOD, temporary defences will be installed raising defence levels to 7.7m AOD (RM2) if deemed necessary. The EFRP will be implemented by the Contractor / DONG.

Overall, the risk associated with flooding from fluvial or tidal sources is considered to be appropriately mitigated during the construction phase, and is considered to be low following completion of the reinstatement works. Flood defence consent will be sought prior to any works in the proximity of the coastal defences.

5.2 Flooding from sewers

Sewer flooding can occur during periods of heavy rainfall when a sewer becomes blocked or is of inadequate capacity. Given the rural location of the application site, it is not considered that any mains sewers will be present within the vicinity. In addition, any surcharged sewers are not considered to represent a significant risk to the development given the nature of the temporary construction works and the location of the proposed permanent infrastructure below ground.

5.3 Surface water (pluvial) flooding

This can occur during intense rainfall events, when water cannot soak into the ground or enter drainage systems. Overland flow is likely to follow the local topography, ponding in valleys or topographical depressions.

EA mapping indicates that the vast majority of the area on the landward side of the coastal defences is at a low or very low risk of surface water flooding. In addition, any ponded surface water is not considered to represent a significant risk given the nature of the temporary construction works and the location of the proposed permanent infrastructure below ground.

5.4 Groundwater flooding

This can occur in low-lying areas when groundwater levels rise above surface levels, or within underground structures. BGS mapping indicates that the application site overlies a Secondary (Undifferentiated) Aquifer relating to the Tidal Flat Deposits. These formations have varying characteristics in different locations. Given the intertidal location, it is likely that shallow groundwater is present in the superficial deposits. However, the SFRA states that there have been no reported incidents of groundwater flooding within the district and therefore it is not considered to be a significant source of flooding.

5.5 Other Sources

Other potential sources of flooding include man-made structures such as reservoirs and canals. No man-made water features are recorded within 1km of the subject site and EA mapping shows that the site is not within an area considered to be at risk from reservoir flooding. The risk associated with flooding from other sources (such as reservoirs and canals) is considered to be low.

6 SURFACE WATER MANAGEMENT

Following reinstatement of defences, the construction compound and access road on the landward side of the coastal defences will be reinstated to its current form. Given that the cable route will be entirely below ground there will be no long term alterations to the drainage regime as a result of the proposed works.

During the temporary excavation period, a construction compound will be required on the landward side of the coastal defences. A temporary access road will also be installed. In order to ensure that there is no increase in surface water runoff rates from the compound / road areas as a result of any hardstanding laid down, temporary drainage measures such as a swale / detention basin will be installed to retain surface water on-site prior to discharge to the adjoining drainage ditch.

7 SEQUENTIAL TEST AND EXCEPTION TEST

7.1 Sequential Test

The NPPF requires the Local Authority to apply the Sequential Test in consideration of new development. The aim of the Test is to steer new development to areas at the lowest probability of flooding. Given that the proposed cable route is associated with an existing off-shore wind farm, it is classified as 'essential infrastructure' in the NPPF. There are no available alternative locations for the cable route which would not require passing through the primary defences. Following the laying of the cables, the primary defences will be reinstated to their former level and therefore not increase flood risk off-site upon completion. Therefore the Sequential Test is considered to be passed.

7.2 The Exception Test

The NPPF advises that 'essential infrastructure' can be considered appropriate in Flood Zone 3a, following satisfactory application of the Exception Test. The Exception Test aims to ensure that more vulnerable property types are not allocated to areas at high risk of flooding. For the Exception Test to be passed:

- b) it must be demonstrated that the development provides wider sustainability benefits to the community that outweigh flood risk, informed by a Strategic Flood Risk Assessment where one has been prepared;
- c) a site-specific flood risk assessment must demonstrate that the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.

With reference to point (a) above, the proposed cable route relates to an off-shore wind farm which provides energy from a renewable source and is considered to provide significant community and sustainability benefits.

With reference to point (b) above, this Flood Risk Assessment demonstrates that the development will be safe, without increasing flood risk elsewhere. It is considered that the development passes the Exception Test.

8 SUMMARY AND CONCLUSIONS

The aim of the Flood Risk Assessment is to outline the potential for the site to be impacted by flooding, the potential impacts of the development on flooding both onsite and in the vicinity, and the proposed measures which can be incorporated into the development to mitigate the identified risks. The report has been produced in accordance with the guidance detailed in the NPPF. Reference has also been made to the CIRIA SUDS manual (C697) and the Local Authority's Strategic Flood Risk Assessment.

The proposal comprises the engineered breach and reinstatement of primary defences to allow the laying of export cables in association with Race Bank offshore wind farm. The site compound is considered to benefit from a minimum of a 1 in 150 year standard of protection prior to the engineered breach. During breach works, site workers and equipment will be subject to a reduced standard of protection from tidal flooding. Although excavation of the primary sea defences will take place to a level of 2.3m AOD, the seaward side of the defences will be maintained at a level of approximately 4.2m AOD. Throughout the duration when excavation is below 5.15m AOD, a temporary flood wall/material required to infill the trench will be continuously deployed when cable laying operations are not taking place. When cable laying operations are taking place the necessary flood wall and materials will be continuously stored on site ready for deployment on immediate command. In addition, real time sea level data will be monitored along with predicted tide and surge levels. Site-specific EA warning will be issued if necessary and a Flood Evacuation Plan will be made available to all those working at the site and implemented by the Contractor / DONG for use if appropriate upon receipt of a flood warning from the EA.

Given that the cable route will be entirely below ground, flood risk is only considered to be relevant during the construction phase.

In order to mitigate against any increase in surface water runoff rates from the temporary construction compound, it is proposed to incorporate temporary drainage measures, such as a swale / detention basin, to contain runoff on-site prior to discharge to the existing drainage network.

It has been demonstrated that the development meets the Sequential and Exception Tests imposed under the NPPF.

Overall, the risk associated with flooding from fluvial or tidal sources is considered to be appropriately mitigated during the construction phase, and is considered to be low following completion of the reinstatement work therefore meeting the requirements of the NPPF.

APPENDIX A

Figures

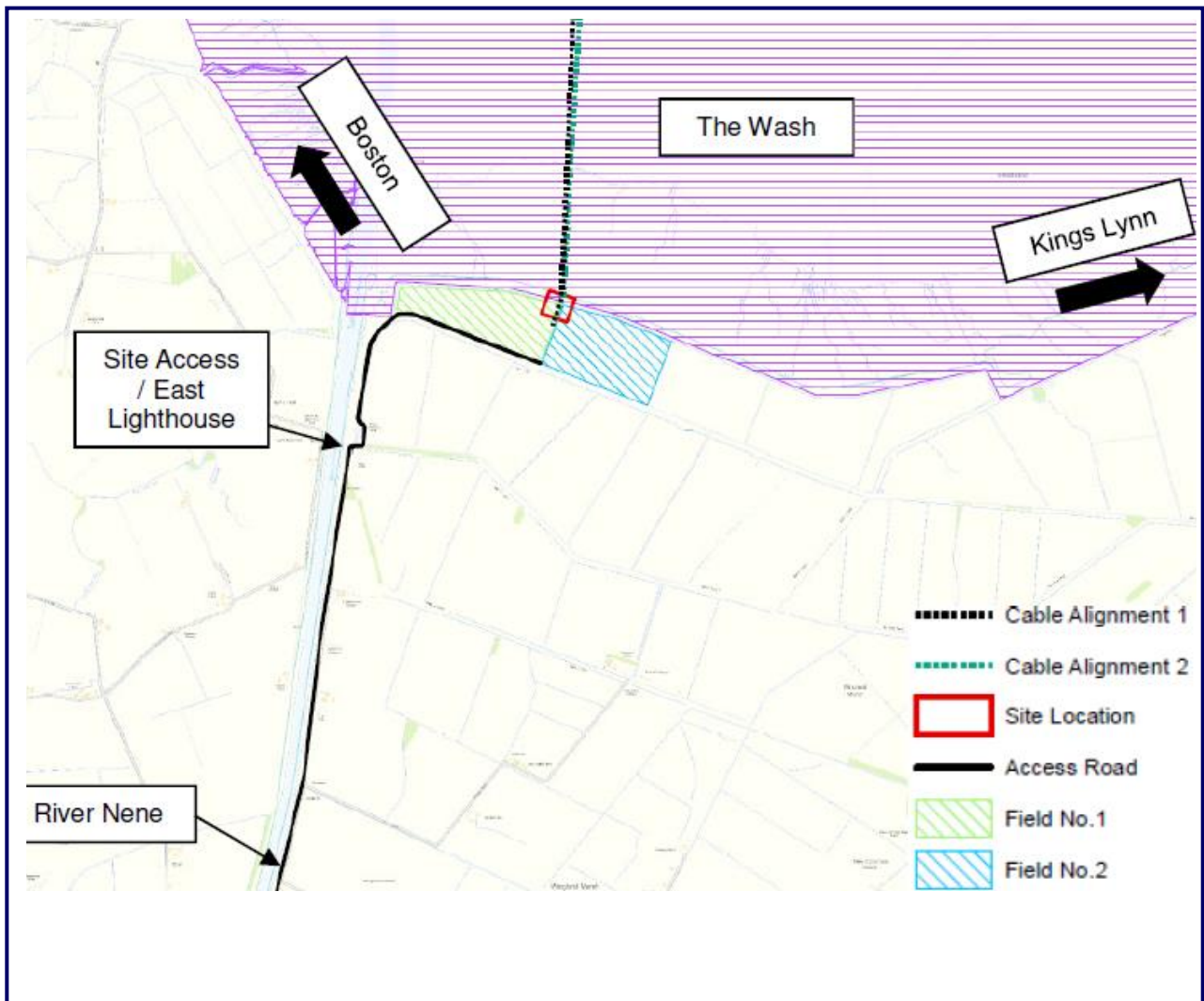


Figure 1: Site Location Plan

Map Date: Current

Scale: Not to scale

RPS
14 Cornhill
London
EC3V 3ND

☎ 020-7280-3200
🌐 www.rpsgroup.com

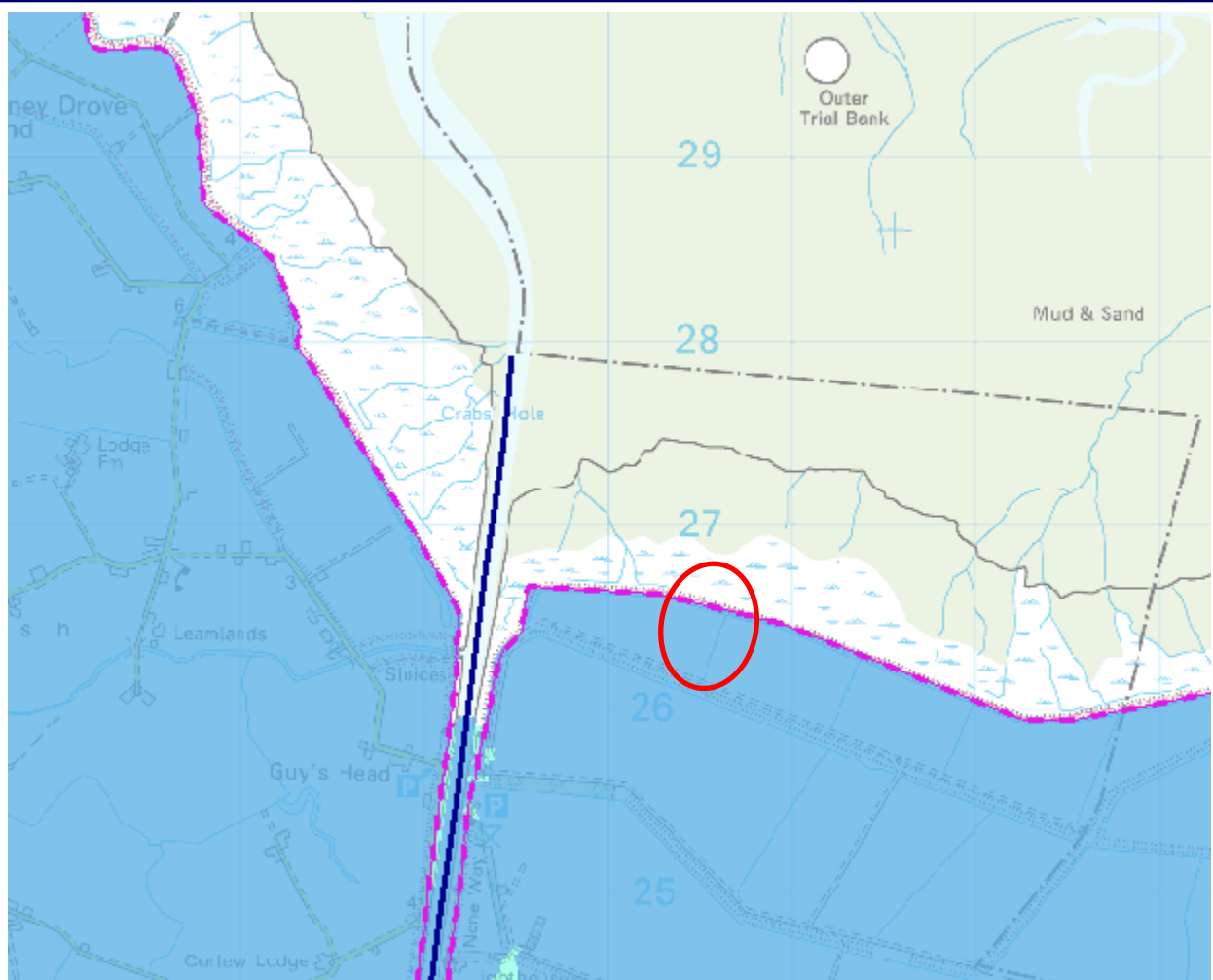


Figure 2: Environment Agency Flood Map

Map Date: Current

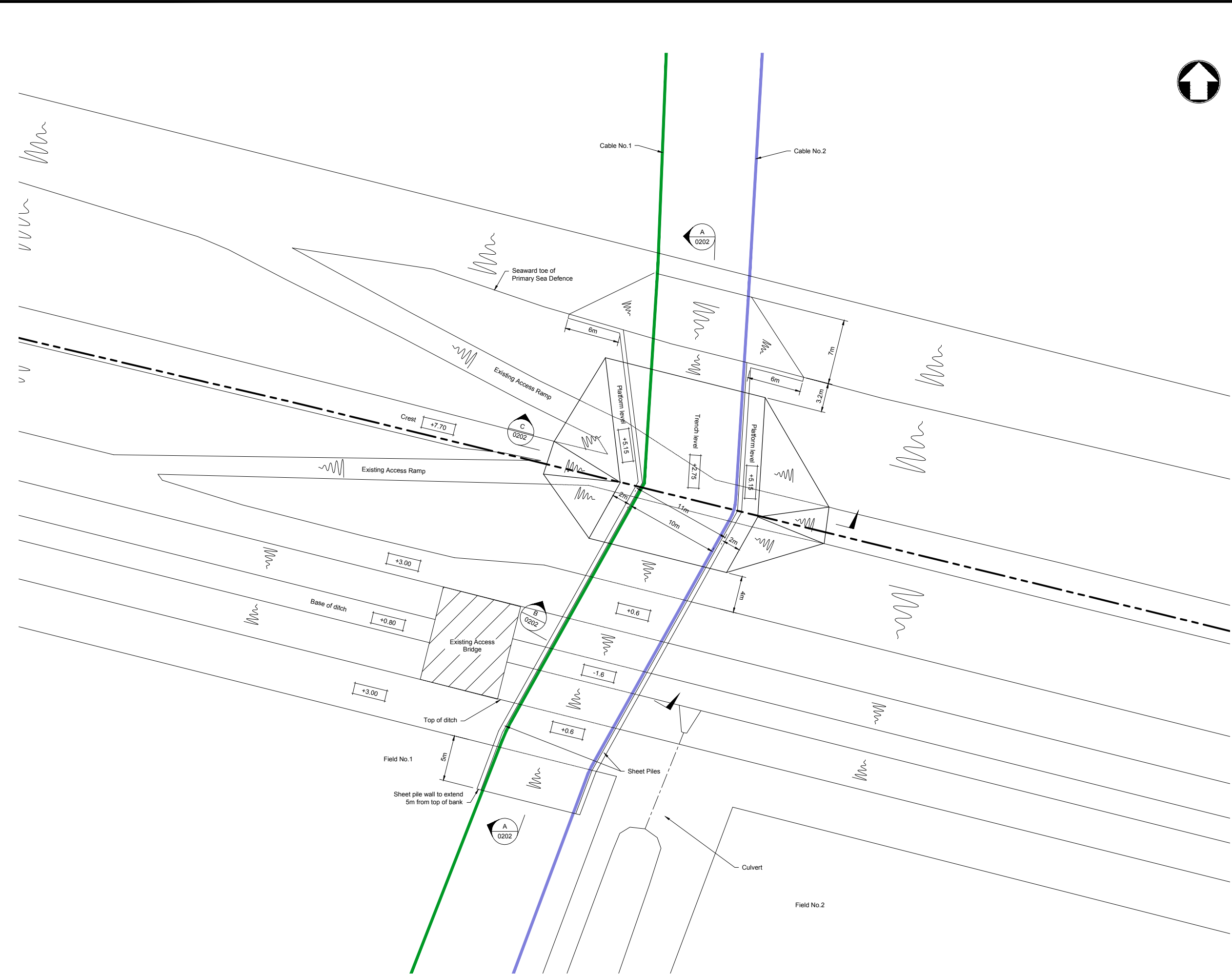
Scale: Not to scale

RPS
14 Cornhill
London
EC3V 3ND

☎ 020-7280-3200
🌐 www.rpsgroup.com

APPENDIX B

Development Plans



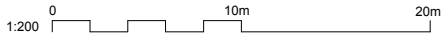
Plan
1:200

- Notes
1. All dimensions are in metres unless noted otherwise.
 2. All levels are in metres relative to Ordnance Datum Newlyn (ODN) unless noted otherwise.
 3. All positions are in metres relative to British National Grid.
 4. Conceptual drawings only. Not to be used for construction.
 5. Topographic data reproduced from LSTC Onshore Topographic Survey (2014) & Fugro Geophysical Investigation (2014).
 6. See MMD-348992-C-DR-00-XX-0001 and MMD-348992-C-DR-00-XX-0002 for the Site Plan and Topographic Plan respectively.
 7. At the Sea Defence embankment sheet piles to remain in place after breach and reinstatement operations. At the ditch sheet piles to be removed after cable laying operations.

- Key to symbols
- Cable Alignment No. 1
 - Cable Alignment No. 2
 - - - Landward Boundary of desigated sites
 - Extent of open excavation
 - = = = Extent of sheet piles

Reference drawings

MMD-348992-C-DR-00-XX-0202 - Revised Installation Option



P1	02.12.15	IAS	Preliminary Issue	ESS	RT
Rev	Date	Drawn	Description	Ch'k'd	App'd



Mott MacDonald House
8-10 Sydenham Road
Croydon
CR0 2EE
United Kingdom
T +44 (0)20 8774 2000
F +44 (0)20 8681 5706
W www.mottmac.com

Client



DONG Energy Wind Power
5 Howick Place SW1P 1WG
London, United Kingdom

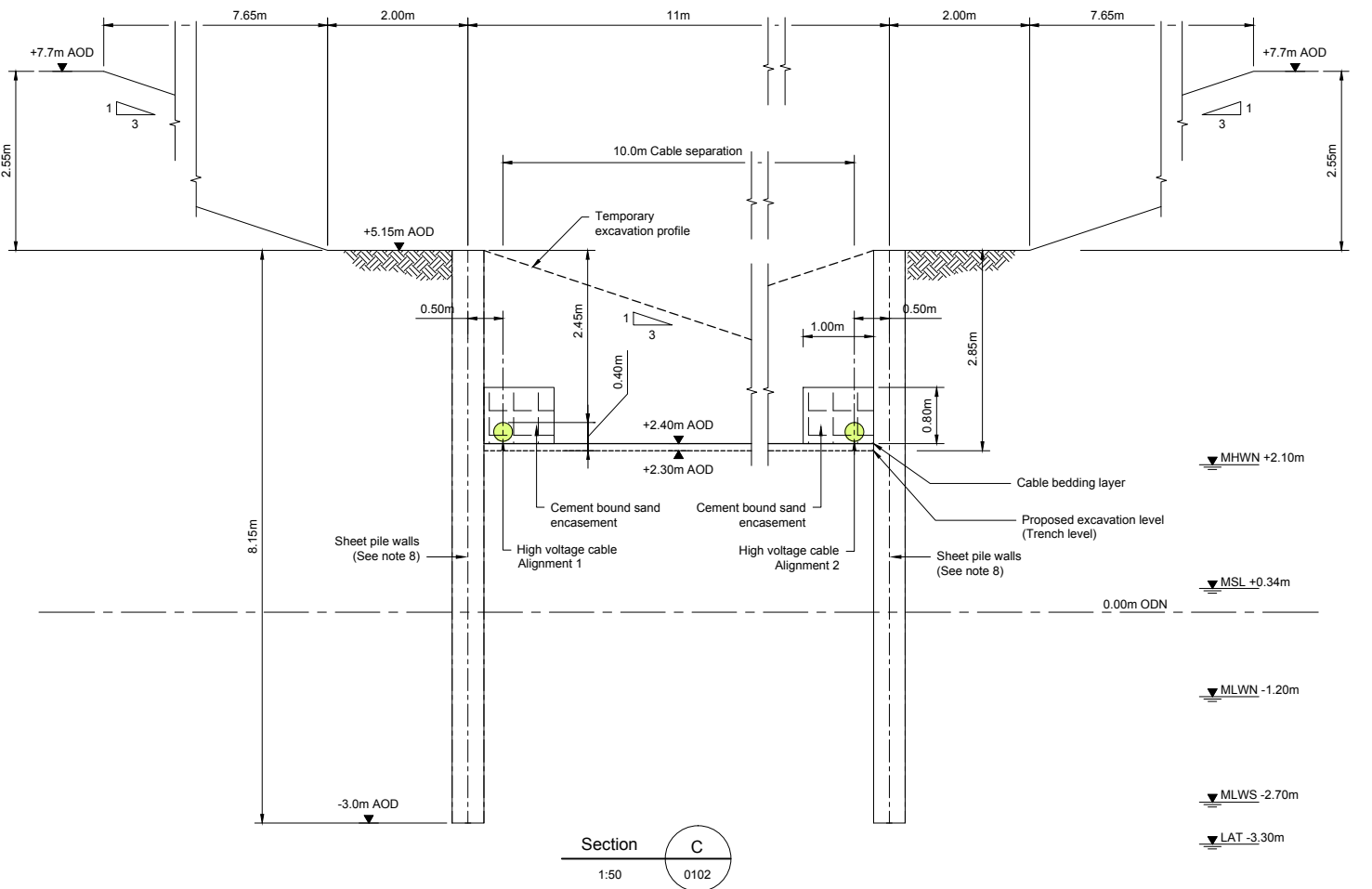
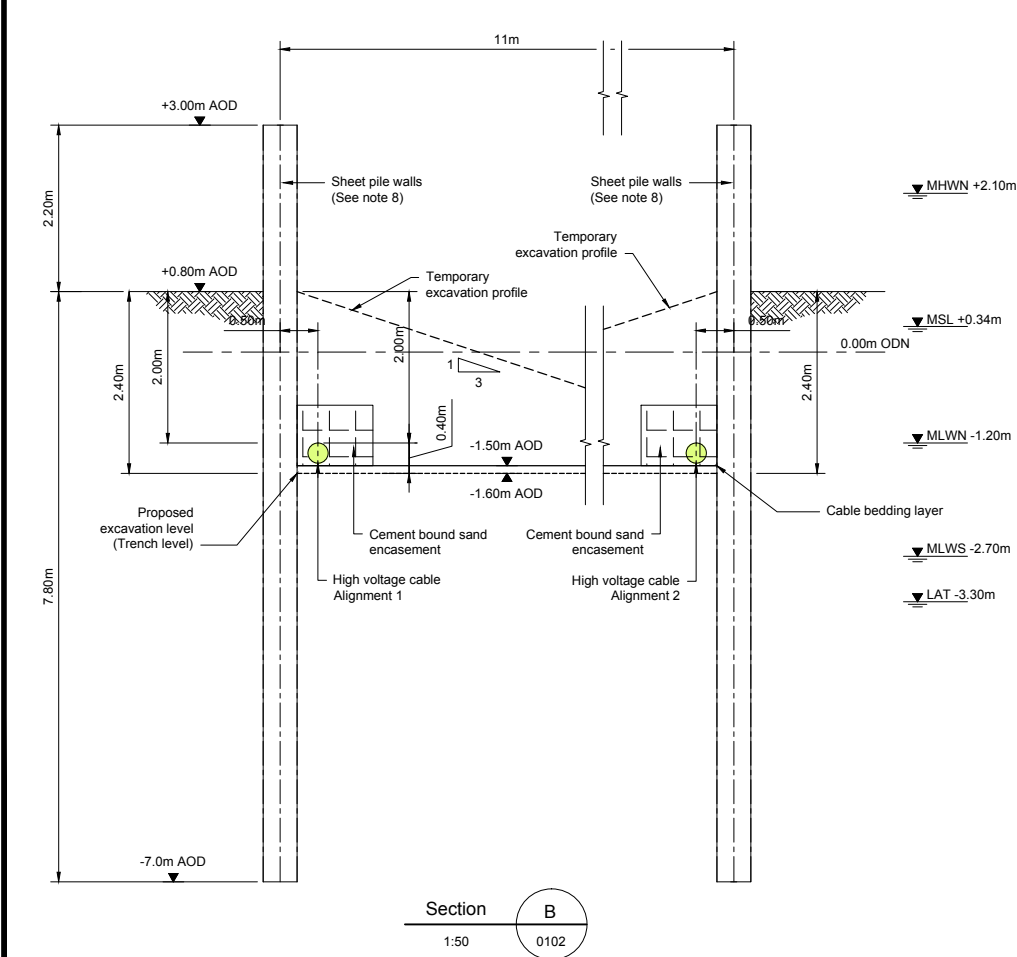
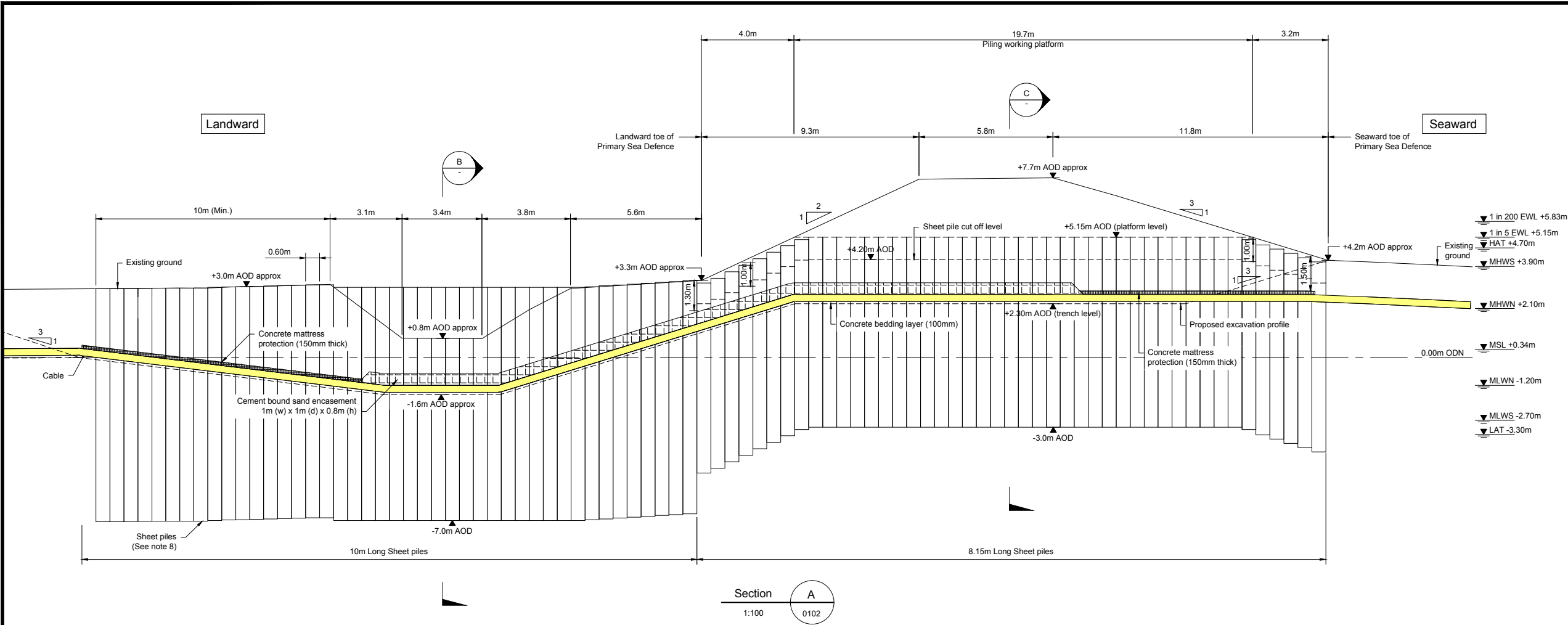
Title

Race Bank Export Cable Installation
Sea Defence Breach
Revised Installation Option
General Arrangement

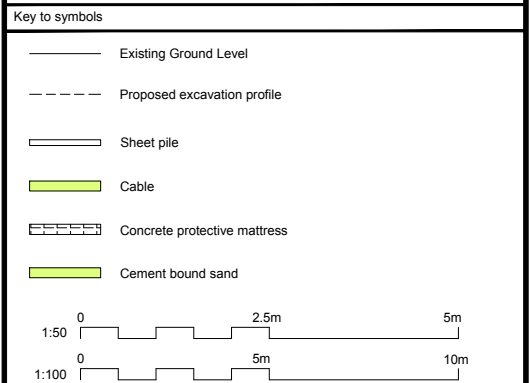
Designed	E Shaw-Smith	ESS	Eng check	E Shaw-Smith	ESS
Drawn	I A Sussex	IAS	Coordination	M Wearmouth	MW
Dwg check	M Wearmouth	MW	Approved	R Turner	RT
Scale at A1	1:200	Status	PRE	Rev	P1
				Security	STD

Drawing Number

MMD-357166-C-DR-00-XX-0102



- Notes
1. All dimensions are in metres unless noted otherwise.
 2. All levels are in metres relative to Ordnance Datum Newlyn (ODN) unless noted otherwise.
 3. All positions are in metres relative to British National Grid.
 4. Reference drawings only. Not to be used for construction. This drawing shall be read in conjunction with the Specification (357166_010 Dong Energy Race Bank Sea Defence Breach & Reinstatement Scope of Works Specification).
 5. Topographic data reproduced from LSTC Onshore Topographic Survey (2014) & Fugro Geophysical Investigation (2014).
 6. Water levels based on the Race Bank Export Cable Installation Sea Defence Breach Study Report (MML 2015).
 7. See MMD-348992-C-DR-00-XX-0001 and MMD-348992-C-DR-00-XX-0002 for the Site Plan and Topographic Plan respectively.
 8. At the Sea Defence embankment sheet piles to remain in place after breach and reinstatement operations. Landward of the landward toe of the Sea Defence sheet piles to be removed after cable laying operations. Pile lengths shown are indicative only, based on conceptual design calculations. Piles are driven to ground level apart from at the ditch where the top of the piles will be the same level as the ditch banks.
 9. Soil slopes shall be cut not steeper than 1:3. Prior to permanent reinstatement, slopes shall be benched in lifts of no more than 500mm to ensure sufficient compaction is achieved. All benching & temporary surfaces shall be shaped such that rain water is shed into the drainage system.



Reference drawings

MMD-348992-C-DR-00-XX-0102 - General Arrangement

0	13.01.16	IAS	Tender Issue	MW	RT
Rev	Date	Drawn	Description	Ch'k'd	App'd

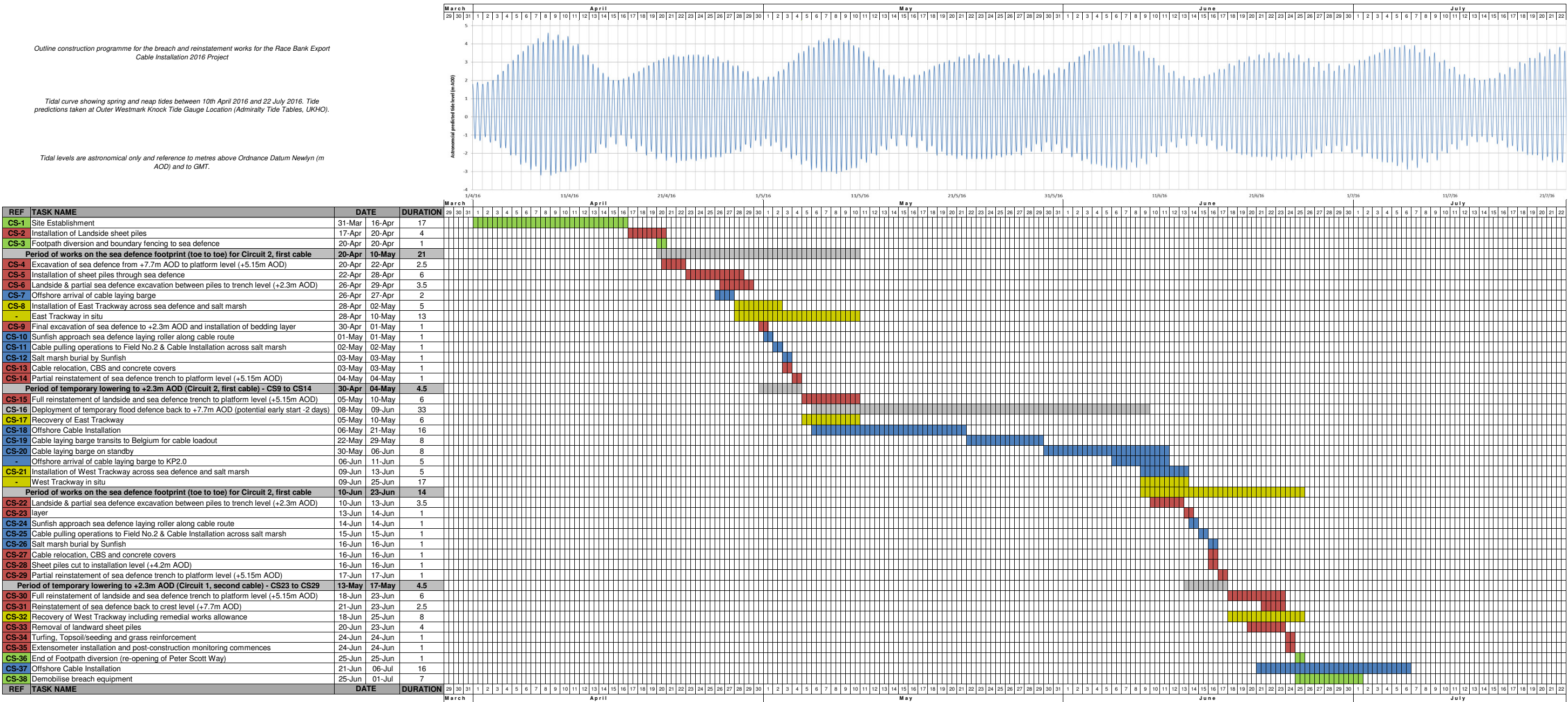


Title

Race Bank Export Cable Installation
Sea Defence Breach
Reference Drawings
Sections

Designed	E Shaw-Smith	ESS	Eng check	E Shaw-Smith	ESS
Drawn	I. Sussex	IAS	Coordination	M. Wearmouth	MW
Dwg check	M. Wearmouth	MW	Approved	R Turner	RT
Scale at A1	Status	Rev	Security		
As Shown	TEN	0	STD		
Drawing Number	MMD-357166-C-DR-00-XX-0202				

OUTLINE CONSTRUCTION PROGRAMME



OUTLINE CONSTRUCTION PROGRAMME

APPENDIX C

Environment Agency Response

RPS notes that although the data provided in Appendix C states it is only valid for a year after issue (up to 17th December 2015), RPS has confirmed with the EA that this is still the most relevant for the site for 2016.

Rachel Shepherd
Rachel.Shepherd@rpsgroup.com

Our ref: CCN-2014-38298
Your ref:

Date: 17 December 2014

Dear Rachael

**Basic Flood Risk Assessment Data Request for Race Bank Offshore Wind Farm,
Walpole, PE12 9TY (National Grid Reference TF 50721 25570)**

Thank you for your request of 24 November 2014 to use Environment Agency data, Product 3 & 8, in the development of the Flood Risk Assessment (FRA) for the above site. The information is attached.

If you have requested this information to help inform a development proposal, then you should note the detail in the attached advisory text on the use of Environment Agency Information for Flood Risk Assessments.

Flood Map

A copy of the Flood Map for your area is enclosed. The Flood Map indicates the area at risk of flooding, **assuming no flood defences exist**, for a flood event with a 0.5% chance of occurring in any year for flooding from the sea, or a 1% chance of occurring for fluvial (river) flooding. It also shows the extent of the Extreme Flood Outline which represents the extent of a flood event with a 0.1% chance of occurring in any year, or the highest recorded historic extent if greater.

The Flood Map only indicates the extent and likelihood of flooding from rivers or the sea. It should also be remembered that flooding may occur from other sources such as surface water sewers, road drainage, etc.

History of Flooding

With regards to the history of flooding I can advise that we do not have any records of flooding in this area. It is possible that other flooding may have occurred that we do not have records for, and other organisations, such as the Local Authority or Internal Drainage Boards, may have records.

Tidal Flood Levels

Please find attached available **tidal** flood levels as requested. These levels have an assessment date of 2006, which should be used in any consideration of future increases due to climate change. The levels are in metres above Ordnance Datum Newlyn (mODN) and are valid for 12 months from the date of issue.

Tidal Defence Information

The tidal defences protecting this site consist of earth embankments. They are in good condition and provide protection against a flood event with a 0.67% chance of occurring in

any year (1 in 150). We inspect these defences regularly to ensure that any potential defects are identified early.

Land Drainage

The information provided is limited to flood risk from the sea and rivers with catchment areas greater than 3km². The property is in an area of extensive land drainage which may pose an additional risk of flooding. Further information should be sought from the Kings Lynn Internal Drainage Board (tel: 01553 819600).

Hazard Mapping – Breaching

Enclosed with this letter is a plan showing the location of the breaches we have modelled, together with four plans showing the maximum values of flood depth, velocity and hazard rating (danger to people) for the following scenarios:

- Year 2006 0.5% (1 in 200) chance event
- Year 2006 0.1% (1 in 1000) chance event
- Year 2115 0.5% (1 in 200) chance event
- Year 2115 0.1% (1 in 1000) chance event

Hazard Mapping – Overtopping

Please find enclosed four plans showing the maximum values of flood depth, velocity and hazard rating (danger to people) resulting from simulated overtopping of defences. The plans show data for the following scenarios:

- Year 2006 0.5% (1 in 200) chance event
- Year 2006 0.1% (1 in 1000) chance event
- Year 2115 0.5% (1 in 200) chance event
- Year 2115 0.1% (1 in 1000) chance event

It is important that you read the contextual notes on the maps.

This information is provided subject to the enclosed notice, which you should read.

If you have any queries or would like to discuss the content of this letter further please contact Jessica Pain using the telephone/email details below. Please quote our CCN reference number in all correspondence where data is referenced, including the Flood Risk Assessment.

Yours sincerely



FOR John Ray
Coastal Partnerships & Strategic Overview Team Leader

Direct dial 01522 785925
Direct fax 01522 785018
Direct e-mail PSOLINCS@environment-agency.gov.uk

Enc.
FRA Advisory Text

Basic FRA Map
Northern Area Tide Levels
Breach Location Plan
Breach Hazard Maps x 4
Overtopping Hazard Maps x 4
Standard Notice



Awarded to Lincolnshire & Northamptonshire Area

Use of Environment Agency Information for Flood Risk / Flood Consequence Assessments

Important

If you have requested this information to help inform a development proposal, then we recommend that you undertake a formal pre-application enquiry using the form available from our website:-

<http://www.environment-agency.gov.uk/research/planning/33580.aspx>

Depending on the enquiry, we may also provide advice on other issues related to our responsibilities including flooding, waste, land contamination, water quality, biodiversity, navigation, pollution, water resources, foul drainage or Environmental Impact Assessment.

In **England**, you should refer to the Environment Agency's Flood Risk Standing Advice, the technical guidance to the National Planning Policy Framework and the existing PPS25 Practice Guide for information about what flood risk assessment is needed for new development in the different Flood Zones. These documents can be accessed via:

<http://www.environment-agency.gov.uk/research/planning/82587.aspx>

<http://www.communities.gov.uk/publications/planningandbuilding/nppftechnicalguidance>

<http://www.communities.gov.uk/publications/planningandbuilding/pps25guideupdate>

You should also consult the Strategic Flood Risk Assessment produced by your local planning authority.

In **Wales**, you should refer to TAN15 for information about what flood consequence assessment is needed for new development in the different flood zones

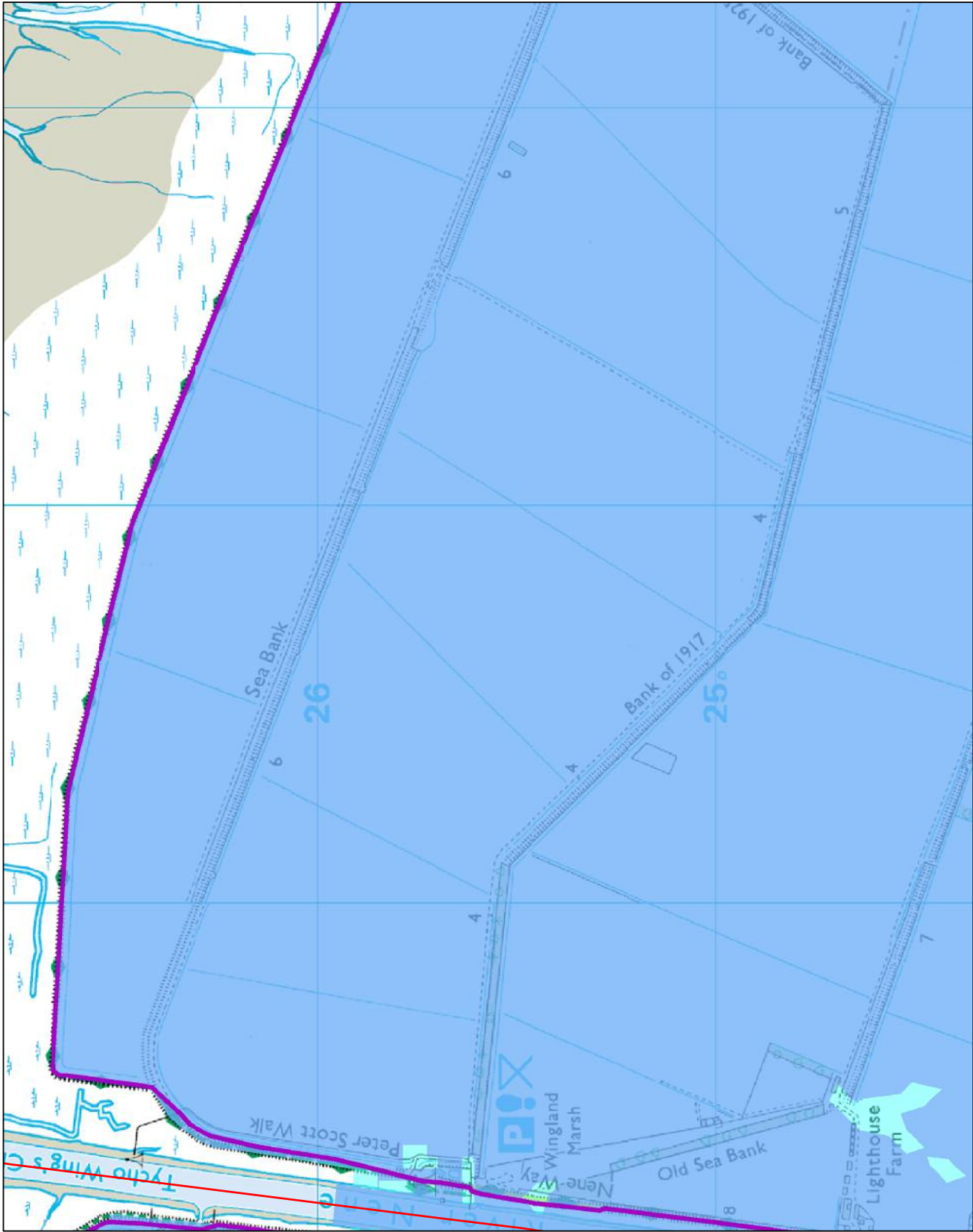
<http://new.wales.gov.uk/splash;jsessionid=8yIGTfGZthmB0t2vhp6hS1GcB1LXvZzB3Ylczf20Xn7LK3zK0nMk!981825250?orig=/topics/planning/policy/tans/tan15/>

You should also consult the Strategic Flood Consequence Assessment if one has been produced by your local planning authority.

In both **England and Wales** you should note that:

1. Information supplied by the Environment Agency may be used to assist in producing a Flood Risk / Consequence Assessment (FRA / FCA) where one is required, but does not constitute such an assessment on its own.
2. This information covers flood risk from main rivers and the sea, and you will need to consider other potential sources of flooding, such as groundwater or overland runoff. The information produced by the local planning authority referred to above may assist here.
3. Where a planning application requires a FRA / FCA and this is not submitted or deficient, the Environment Agency may well raise an objection.
4. For more significant proposals in higher flood risk areas, we would be pleased to discuss details with you ahead of making any planning application, and you should also discuss the matter with your local planning authority.

Basic FRA Map centred on TF 50721 25570 - created December 2014 [Ref: CCN-2014-38298]



- Main River
- Raised Defences
- Area at Risk of Flooding from Rivers or The Sea
- Extreme Flood Outline

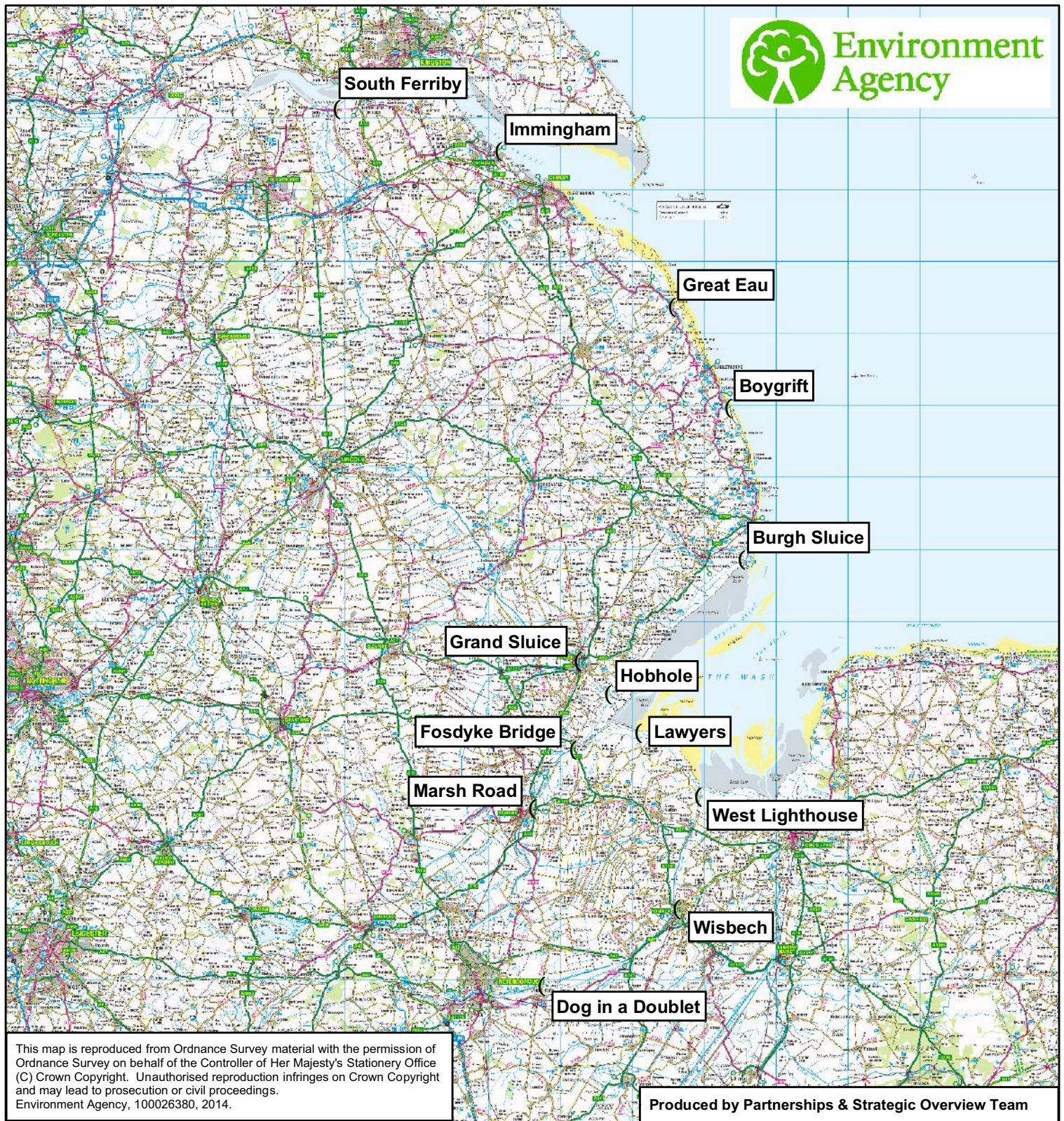
Dark blue shows the area that could be affected by flooding, either from rivers or the sea, if there were no flood defences. This area could be flooded:

- from the sea by a flood that has a 0.5% (1 in 200) or greater chance of happening each year.
- from a river by a flood that has a 1% (1 in 100) or greater chance of happening each year.

Light blue shows the extent of the Extreme Flood Outline, which represents the extent of a flood event with a 0.1% chance of occurring in any year, or the highest recorded historic extent if greater.

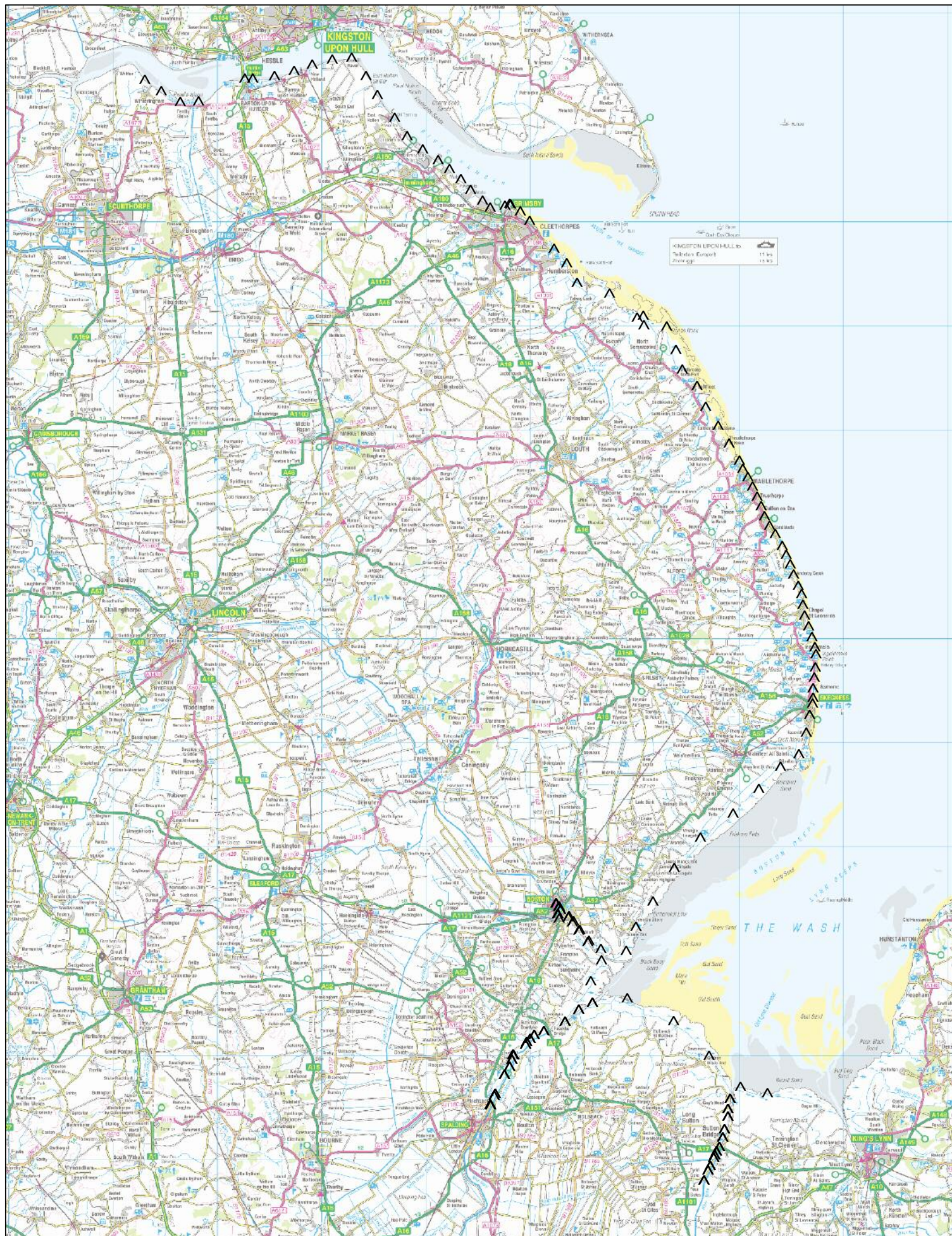
These two colours show the extent of the natural floodplain if there were no flood defences or certain other manmade structures and channel improvements. Sites outside the two extents, but behind raised defences, may be affected by flooding if the defences are overtopped or fail.

Created by the Partnerships and Strategic Overview Team, Lincoln



Still Water Tidal Levels mODN - Tidal Model Analysis 2006

Location	Easting	Northing	100% (1 in 1)	10% (1 in 10)	4% (1 in 25)	2% (1 in 50)	1% (1 in 100)	0.5% (1 in 200)	0.1% (1 in 1000)
South Ferriby	498772	421418	4.90	5.29	5.45	~	~	5.55	5.63
Immingham	521381	415464	4.08	4.49	4.65	4.76	4.88	5.05	5.34
Great Eau	545500	393800	3.80	4.19	4.34	4.46	4.57	4.69	4.96
Boygriff	553300	379800	3.84	4.24	4.41	4.53	4.65	4.77	5.05
Burgh Sluice	555190	358620	4.26	4.45	4.63	4.76	4.90	5.03	5.34
Hobhole	536610	339940	4.82	5.30	5.49	5.64	5.78	5.93	6.27
Lawyers	540750	334550	4.84	5.32	5.51	5.66	5.80	5.95	6.29
West Lighthouse	549150	325750	4.88	5.37	5.57	5.71	5.86	6.01	6.35
Grand Sluice	532400	344500	4.88	5.33	5.51	5.65	5.78	5.93	~
Fosdyke Bridge	531700	332200	4.91	5.38	5.56	5.71	5.85	5.99	~
Marsh Road	526000	324000	5.04	5.44	5.60	5.73	5.85	5.98	~
Wisbech	546100	310000	4.83	5.25	5.41	5.53	5.66	5.78	~
Dog in a Doublet	527300	299300	3.67	4.00	4.13	4.22	4.32	4.42	~



Modelled Breach Locations

0 3.5 7 14 Kilometres

This map indicates the location of where we have modelled the consequence of breaches in the defences along the coastline and tidal rivers. We have mapped the the maximum values of Hazard Rating (Danger to People), Depth and Velocity.

We have not assumed that all breaches occur at the same time, but have modelled each breach individually and overlaid the results to find the maximum values.

Our modelling only considers the consequences of a breach, it does not make any assumption about the likelihood of a breach occurring. Our defences generally provide a good standard of flood defence but a risk of breaching remains.

Please contact the Environment Agency for information on how these maps are used in the management of flood risk.

General Enquiries No: 03709 506 506.

Weekday daytime calls cost 5p plus up to 6p per minute from BT Weekend Unlimited. Mobile and other providers charges may vary



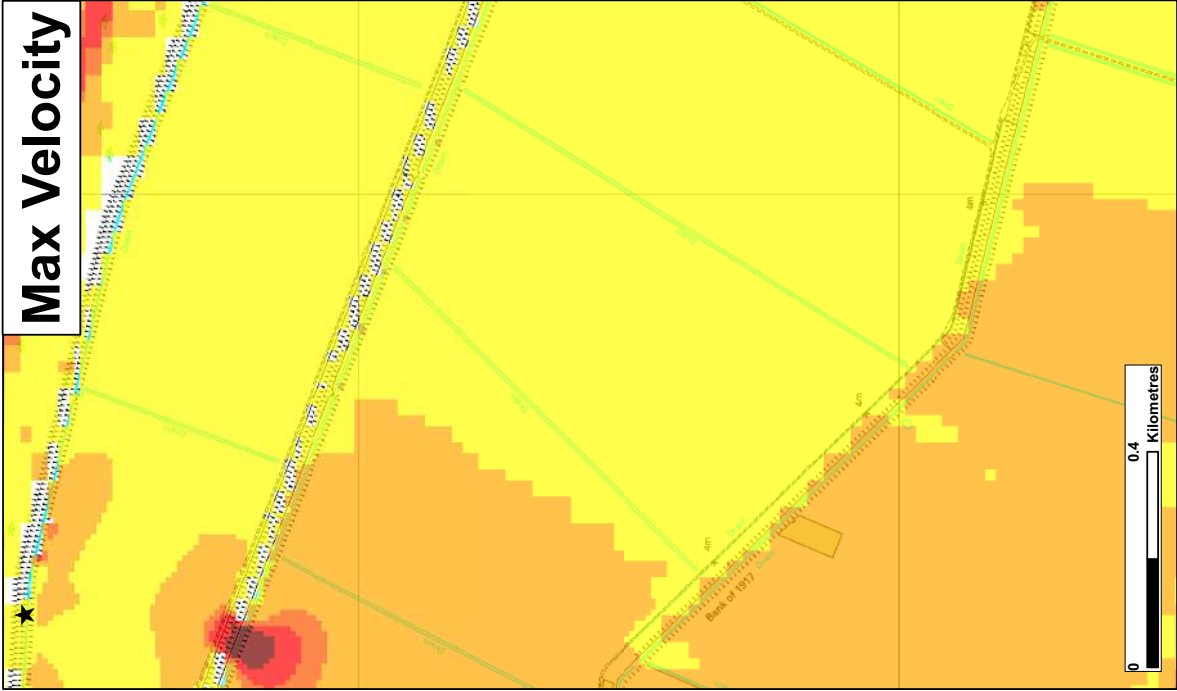
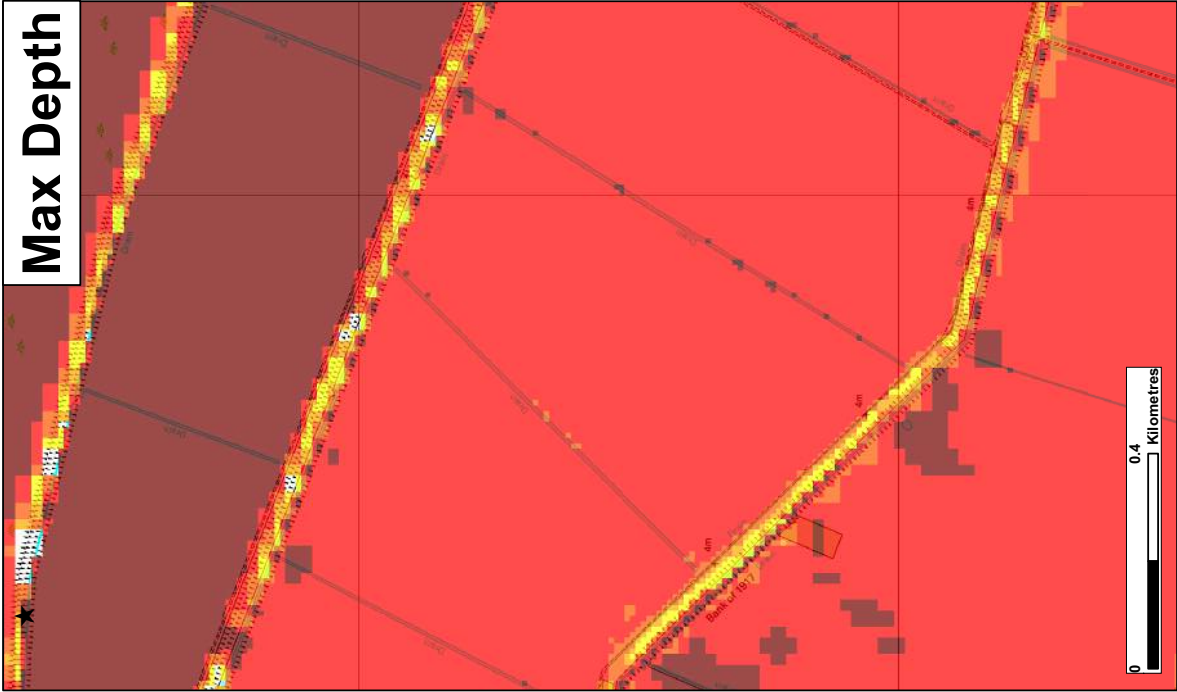
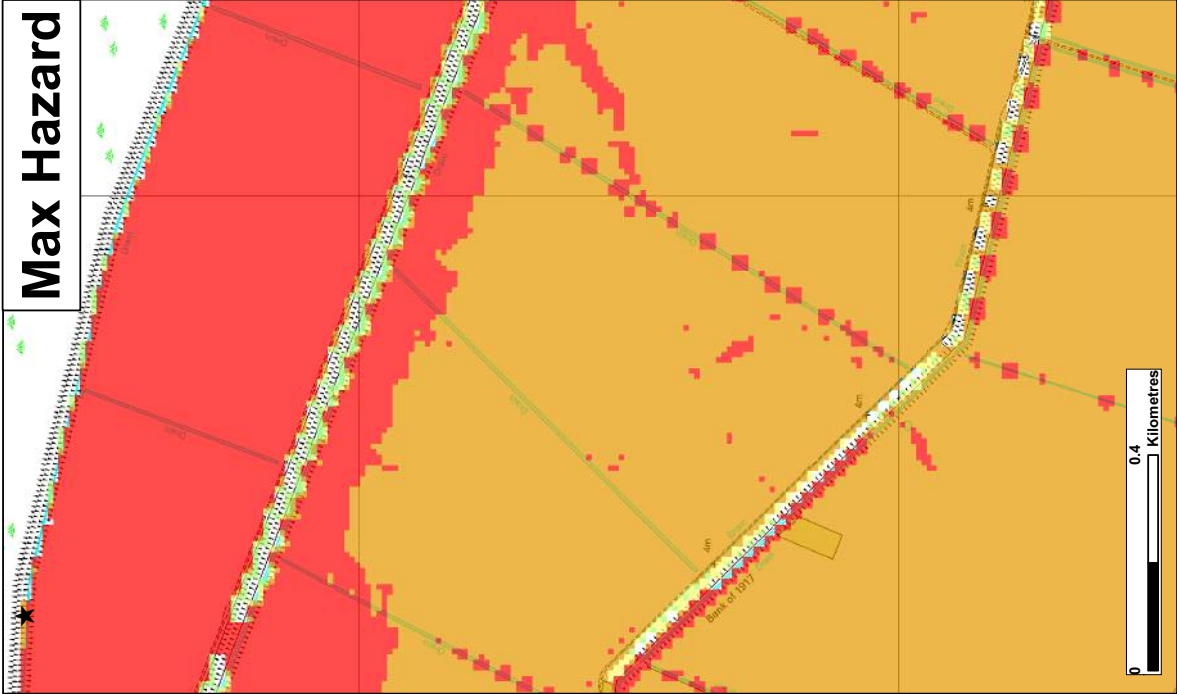
Produced by the Partnership and Strategic Overview Team, Lincoln

General Enquiries No: 03709 506 506

Northern Area Tidal Hazard Mapping

Location of Modelled Breaches

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★ Modelled Breach Locations - see also the accompanying plan "Location of Modelled Breaches"					
Max Hazard (Flood Risk to People : FD2320)		Max Depth (m)		Max Velocity (m/s)	
	Less than 0.75 (Low Hazard)		0 - 0.25		0 - 0.3
	Between 0.75 and 1.25 (Danger for Some)		0.25 - 0.50		0.3 - 1.0
	Between 1.25 and 2.0 (Danger for Most)		0.50 - 1.0		1.0 - 1.5
	Greater than 2.0 (Danger for All)		1.0 - 2.0		1.5 - 2.5
			2.0 +		2.5 +
Date Printed	December 2014	Scenario year	2006	Scenario Annual Chance	0.5% (1 in 200)

This map shows the level of flood hazard to people (called a hazard rating) if our flood defences are breached at certain locations, for a range of scenarios. The hazard rating depends on the depth and velocity of floodwater, and maximum values of these are also mapped.

The map is based on computer modelling of simulated breaches at specific locations. Each breach has been modelled individually and the results combined to create this map. Multiple breaches, other combinations of breaches, different sized tidal surges or flood flows may all give different results.

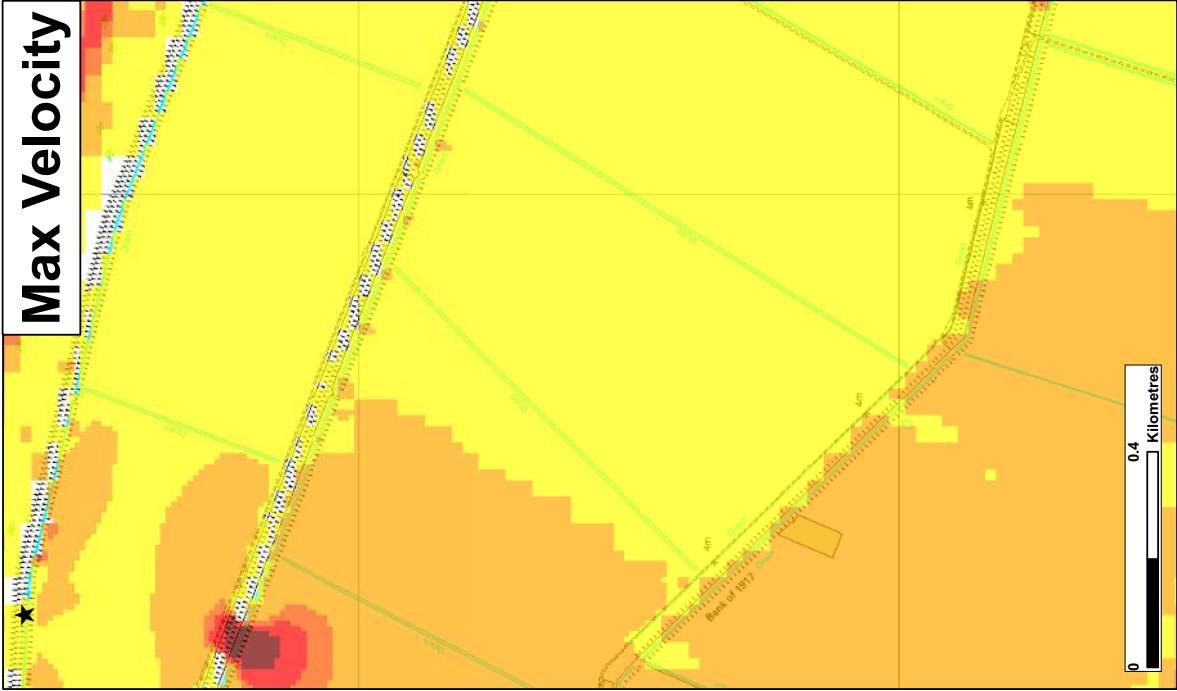
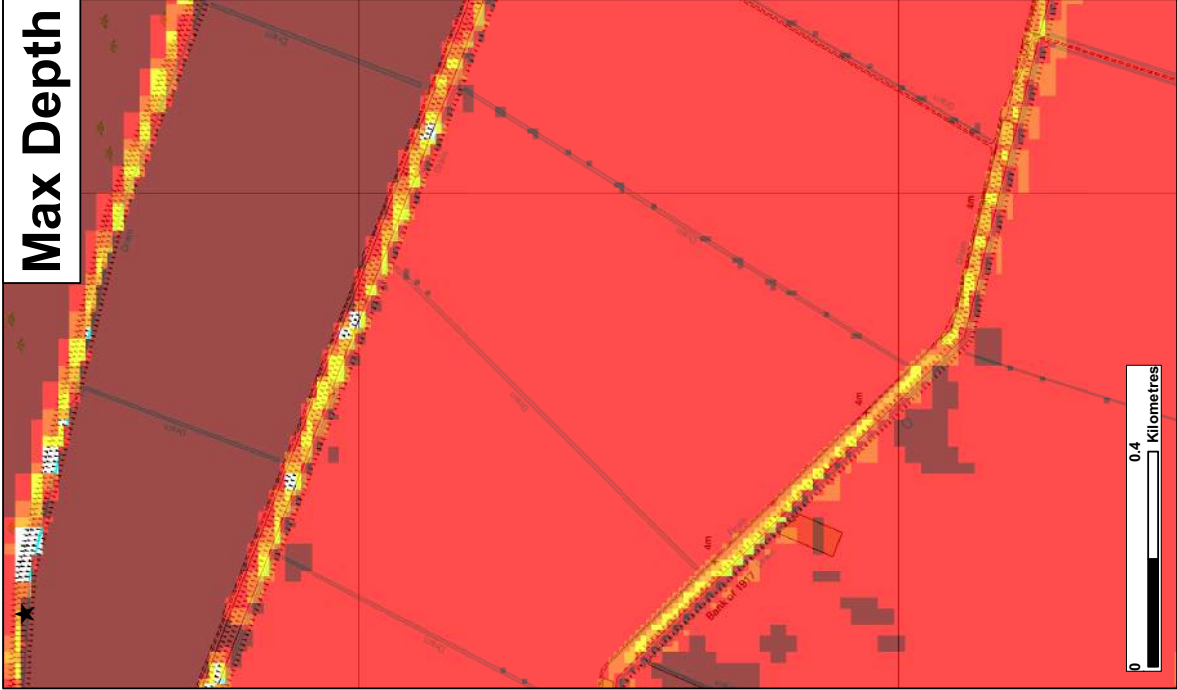
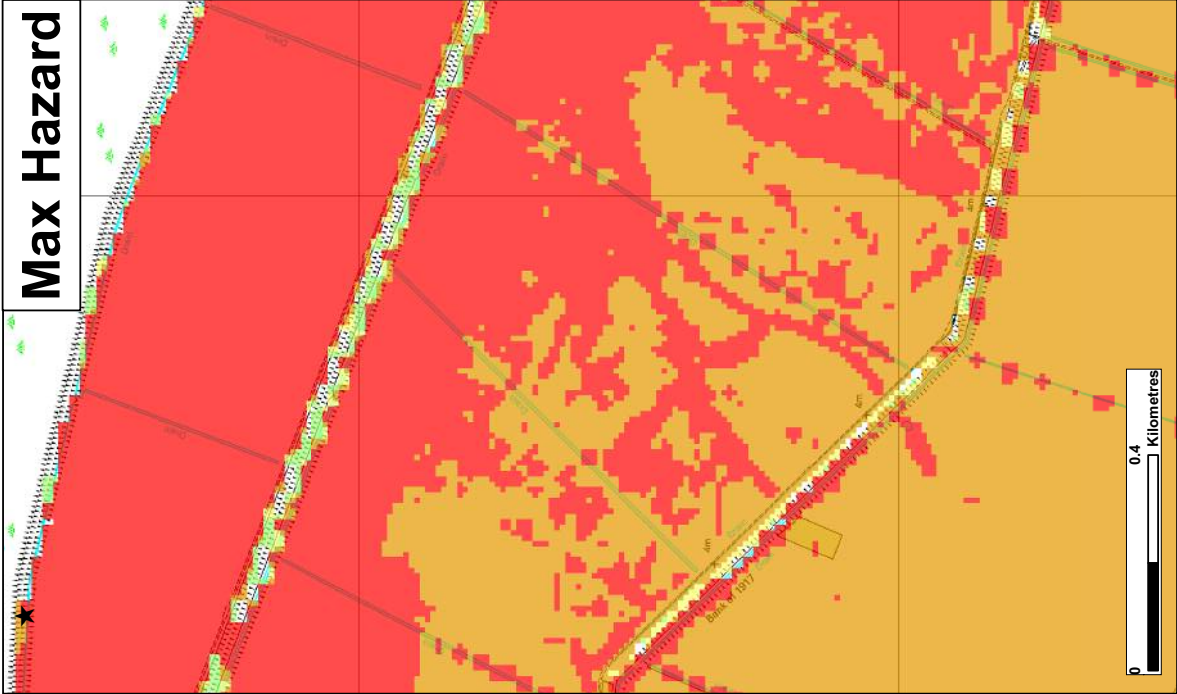
The map only considers the consequences of a breach, it does not make any assumption about the likelihood of a breach occurring. The likelihood of a breach occurring will depend on a number of different factors, including the construction and condition of the defences in the area. A breach is less likely where defences are of a good standard, but a risk of breaching remains.

General Enquiries No: 03708 506 506. Weekday Daytime calls cost 5p plus up to 6p per minute from BT Weekend Unlimited. Mobile and other providers' charges may vary.

**Lincolnshire and Northamptonshire
Tidal Breaching Hazard
Mapping**

Map Centred on TF 50721 25570

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★ Modelled Breach Locations - see also the accompanying plan "Location of Modelled Breaches"			
Date Printed	December 2014	Scenario year	
		2006	
Max Hazard (Flood Risk to People : FD2320)	Less than 0.75 (Low Hazard)	Max Depth (m)	
		Max Velocity (m/s)	
	Between 0.75 and 1.25 (Danger for Some)	0 - 0.25	0 - 0.3
	Between 1.25 and 2.0 (Danger for Most)	0.25 - 0.50	0.3 - 1.0
	Greater than 2.0 (Danger for All)	0.50 - 1.0	1.0 - 1.5
		1.0 - 2.0	1.5 - 2.5
		2.0 +	2.5 +
			0.1% (1 in 1000)

This map shows the level of flood hazard to people (called a hazard rating) if our flood defences are breached at certain locations, for a range of scenarios. The hazard rating depends on the depth and velocity of floodwater, and maximum values of these are also mapped.

The map is based on computer modelling of simulated breaches at specific locations. Each breach has been modelled individually and the results combined to create this map. Multiple breaches, other combinations of breaches, different sized tidal surges or flood flows may all give different results.

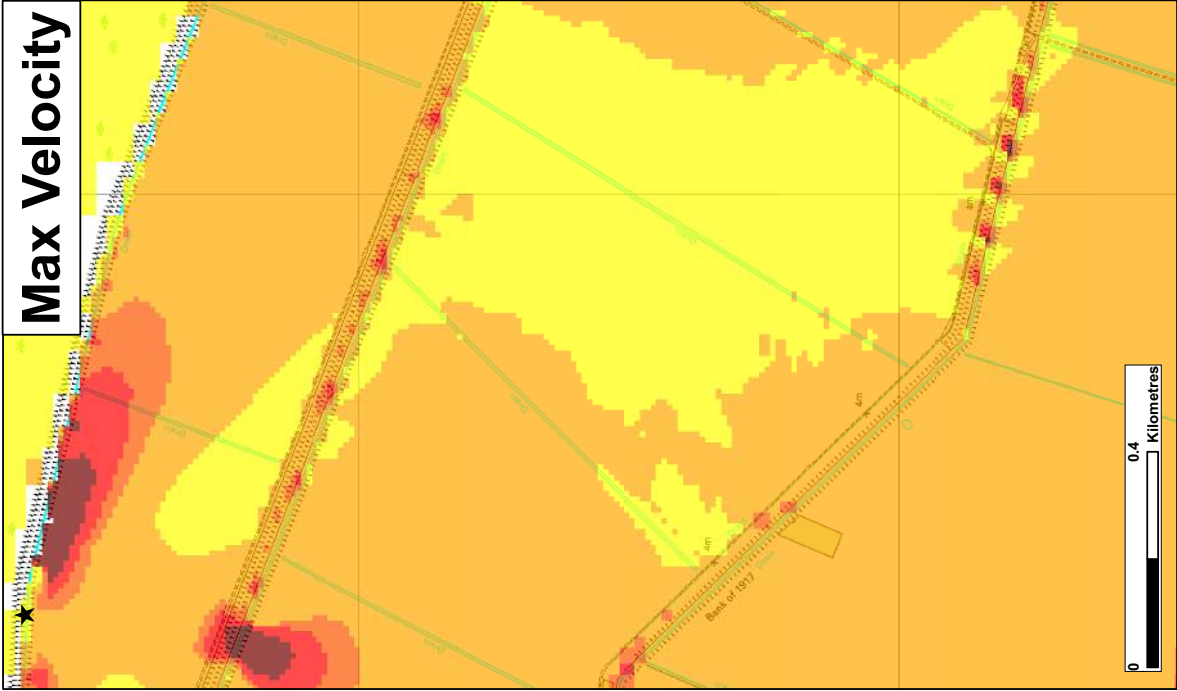
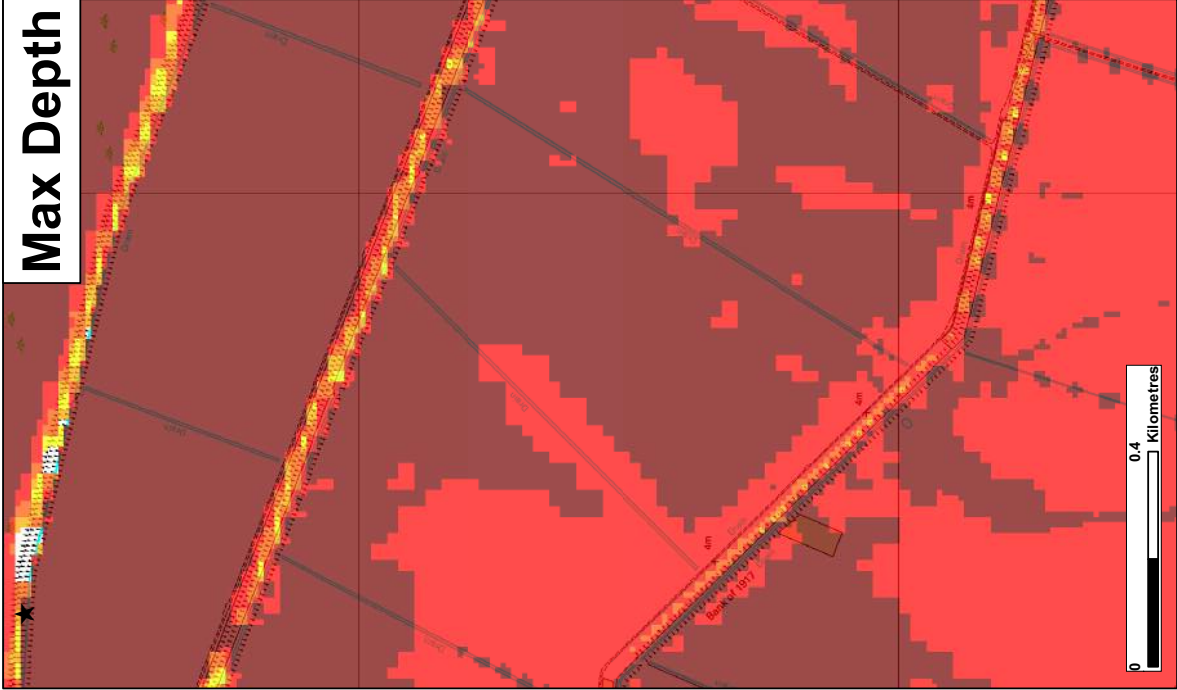
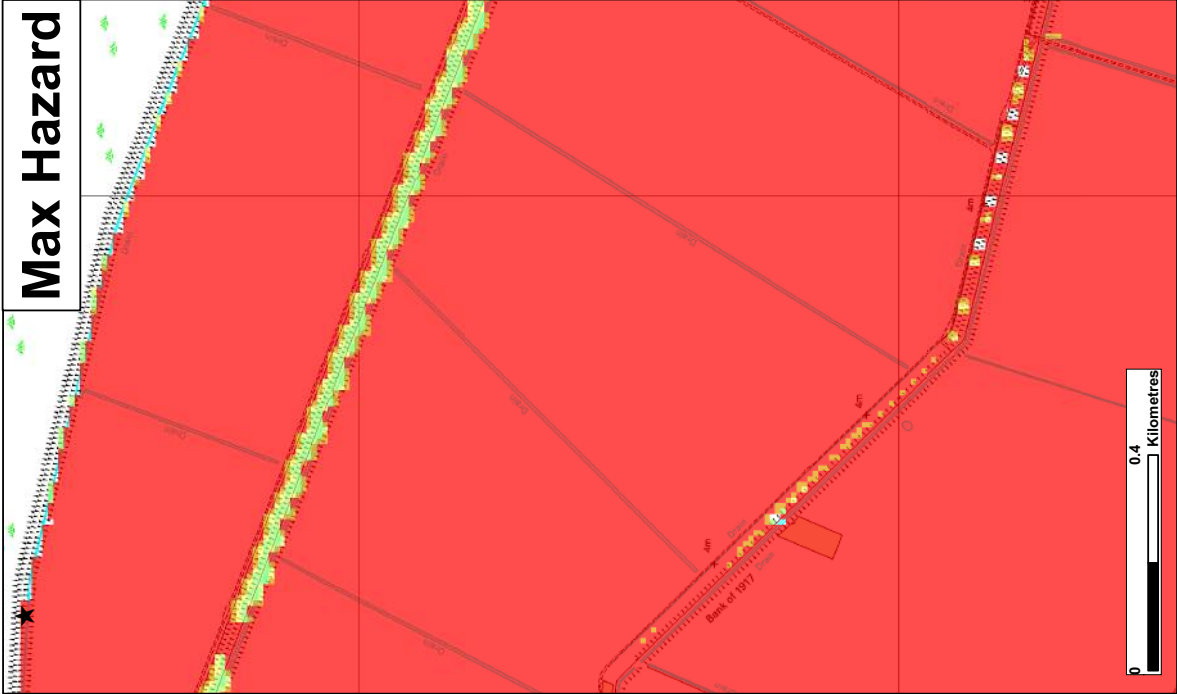
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**Lincolnshire and Northamptonshire
Tidal Breaching Hazard
Mapping**

Map Centred on TF 50721 25570

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★ Modelled Breach Locations - see also the accompanying plan "Location of Modelled Breaches"			
Max Hazard (Flood Risk to People: FD2320)		Max Depth (m)	Max Velocity (m/s)
Less than 0.75 (Low Hazard)	0 - 0.25	0 - 0.3	0 - 0.3
Between 0.75 and 1.25 (Danger for Some)	0.25 - 0.50	0.3 - 1.0	0.3 - 1.0
Between 1.25 and 2.0 (Danger for Most)	0.50 - 1.0	1.0 - 1.5	1.0 - 1.5
Greater than 2.0 (Danger for All)	1.0 - 2.0	1.5 - 2.5	1.5 - 2.5
Date Printed	December 2014	Scenario year	Scenario Annual Chance
		2115	0.5% (1 in 200)

This map shows the level of flood hazard to people (called a hazard rating) if our flood defences are breached at certain locations, for a range of scenarios. The hazard rating depends on the depth and velocity of floodwater, and maximum values of these are also mapped.

The map is based on computer modelling of simulated breaches at specific locations. Each breach has been modelled individually and the results combined to create this map. Multiple breaches, other combinations of breaches, different sized tidal surges or flood flows may all give different results.

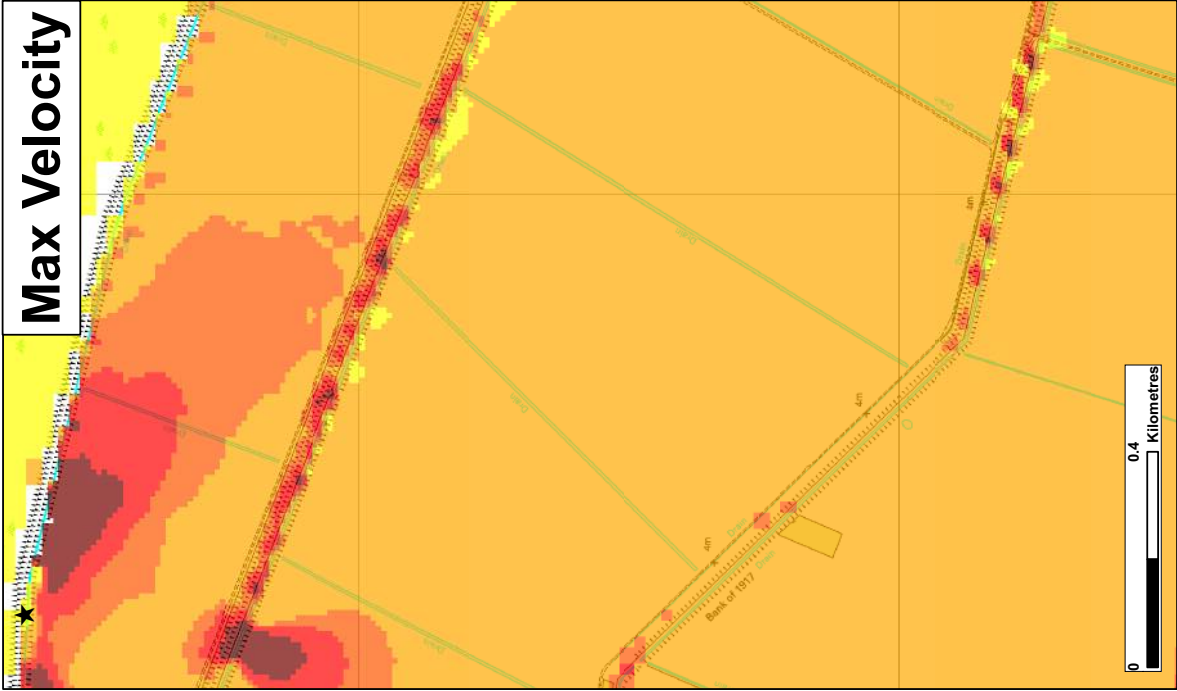
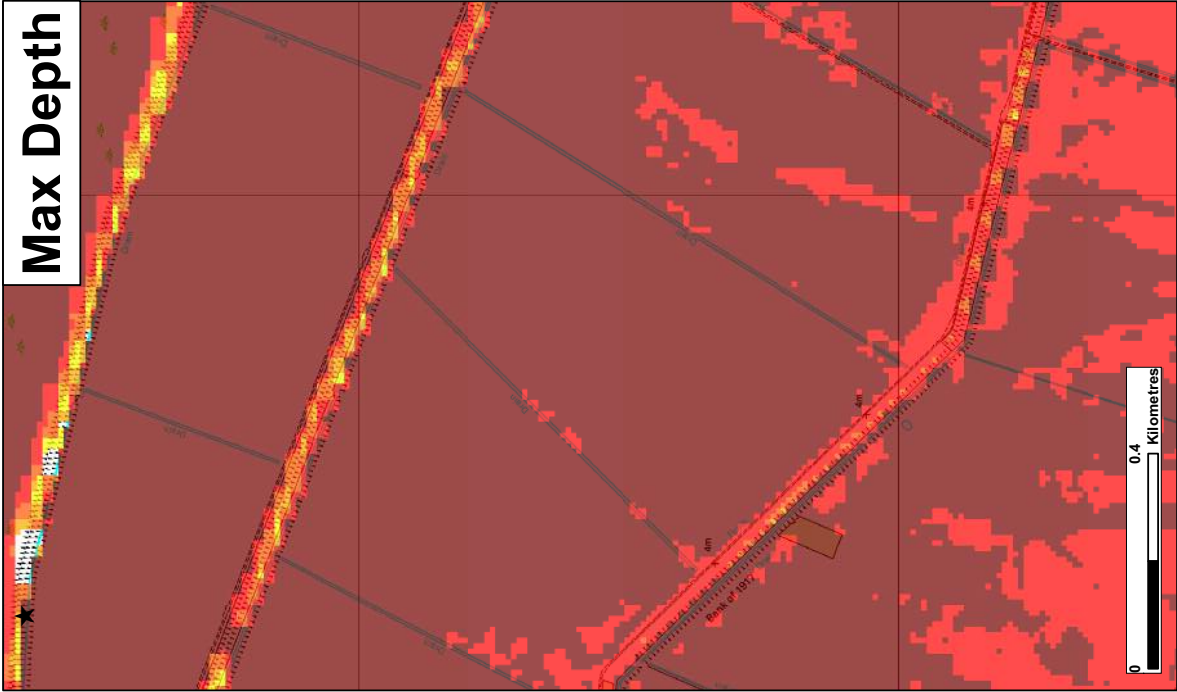
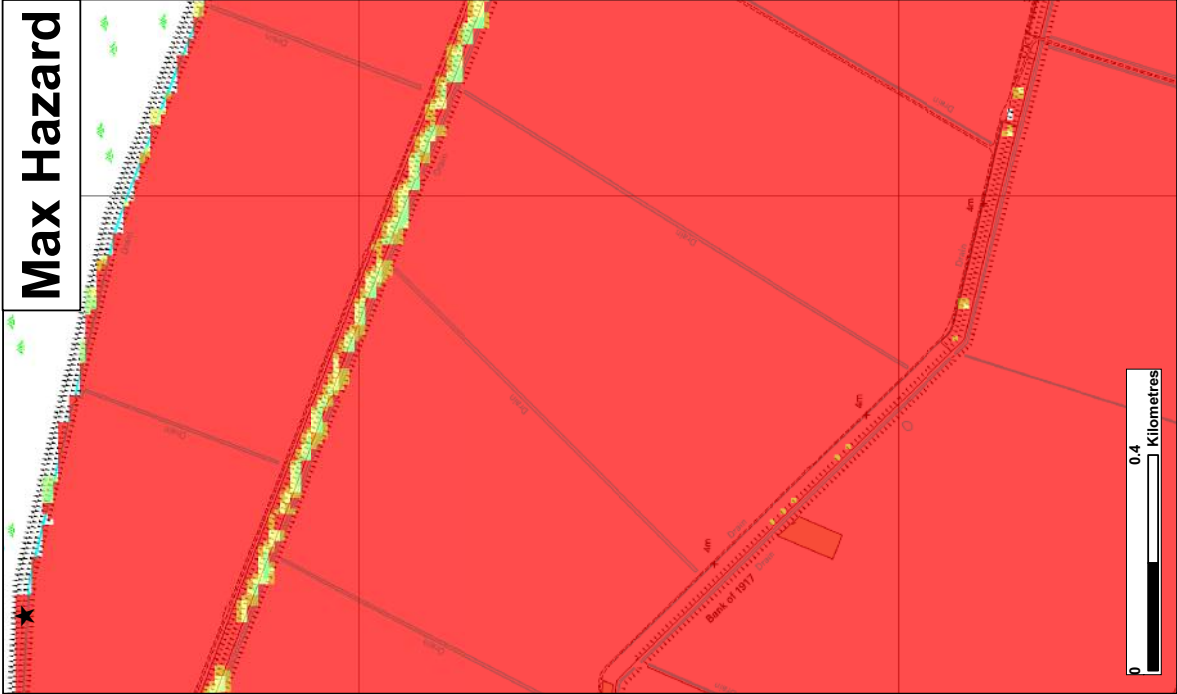
The map only considers the consequences of a breach, it does not make any assumption about the likelihood of a breach occurring. The likelihood of a breach occurring will depend on a number of different factors, including the construction and condition of the defences in the area. A breach is less likely where defences are of a good standard, but a risk of breaching remains.

General Enquiries No: 03708 506 506. Weekday Daytime calls cost 5p plus up to 6p per minute from BT Weekend Unlimited. Mobile and other providers' charges may vary.

**Lincolnshire and Northamptonshire
Tidal Breaching Hazard
Mapping**

Map Centred on TF 50721 25570

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★ Modelled Breach Locations - see also the accompanying plan "Location of Modelled Breaches"					
Date Printed	December 2014	Scenario year	2115	Scenario Annual Chance	0.1% (1 in 1000)
Max Hazard (Flood Risk to People : FD2320)		Max Depth (m)		Max Velocity (m/s)	
	Less than 0.75 (Low Hazard)		0 - 0.25		0 - 0.3
	Between 0.75 and 1.25 (Danger for Some)		0.25 - 0.50		0.3 - 1.0
	Between 1.25 and 2.0 (Danger for Most)		0.50 - 1.0		1.0 - 1.5
	Greater than 2.0 (Danger for All)		1.0 - 2.0		1.5 - 2.5
			2.0 +		2.5 +

This map shows the level of flood hazard to people (called a hazard rating) if our flood defences are breached at certain locations, for a range of scenarios. The hazard rating depends on the depth and velocity of floodwater, and maximum values of these are also mapped.

The map is based on computer modelling of simulated breaches at specific locations. Each breach has been modelled individually and the results combined to create this map. Multiple breaches, other combinations of breaches, different sized tidal surges or flood flows may all give different results.

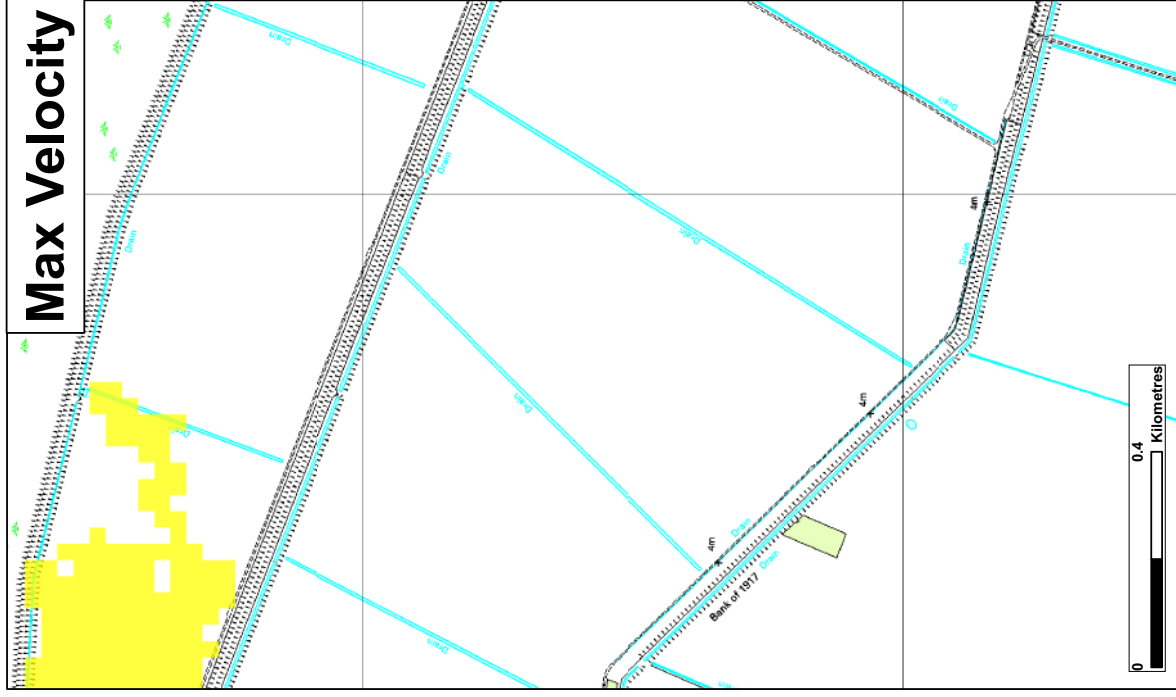
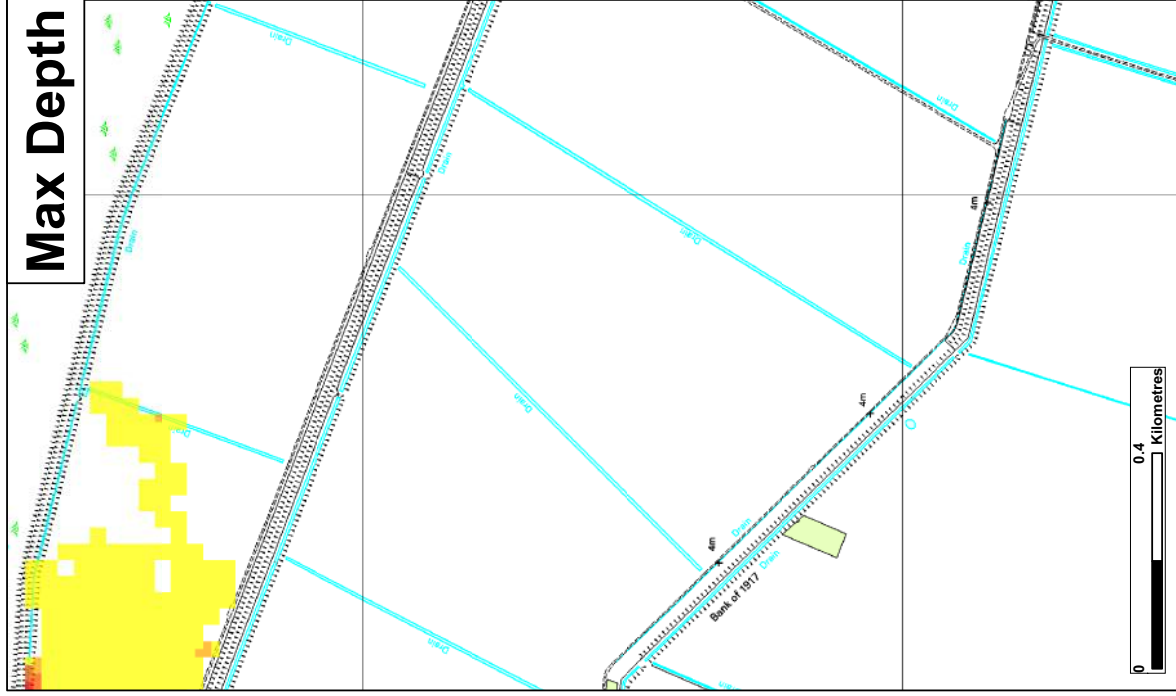
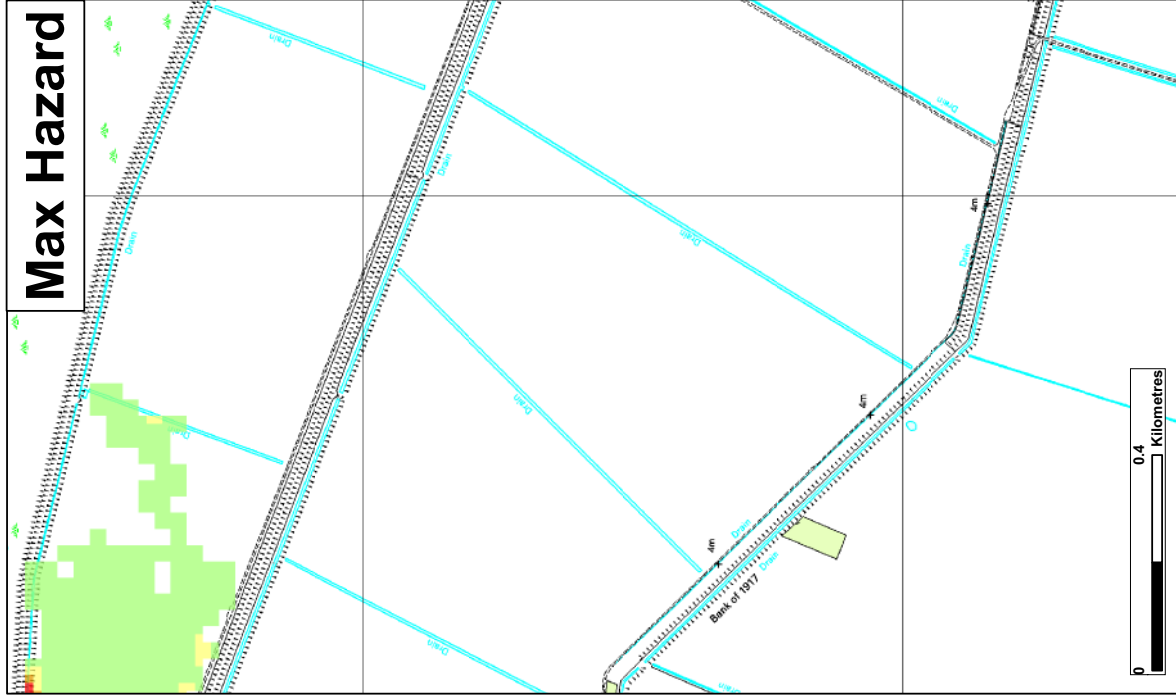
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General Enquiries No: 03708 506 506. Weekday Daytime calls cost 5p plus up to 6p per minute from BT Weekend Unlimited. Mobile and other providers' charges may vary.

**Lincolnshire and Northamptonshire
Tidal Breaching Hazard
Mapping**

Map Centred on TF 50721 25570

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The map is based on computer modelling of simulated overtopping of the main coastal defences for specific tidal scenarios. It does not include overtopping along the following tidal rivers which are currently being investigated:

The map only considers the consequences of overtopping of the defences, and does not show the possible consequences of breaches of the tidal defences. Separate maps of the flood extent from just breaching of the defences are available.

For future climate change scenarios it is assumed that defences remain at 2006 heights.

These maps do not replace the flood zone maps used in the National Planning Policy Framework (NPPF)

Please contact the Environment Agency for information on how these maps are used in the management of flood risk.

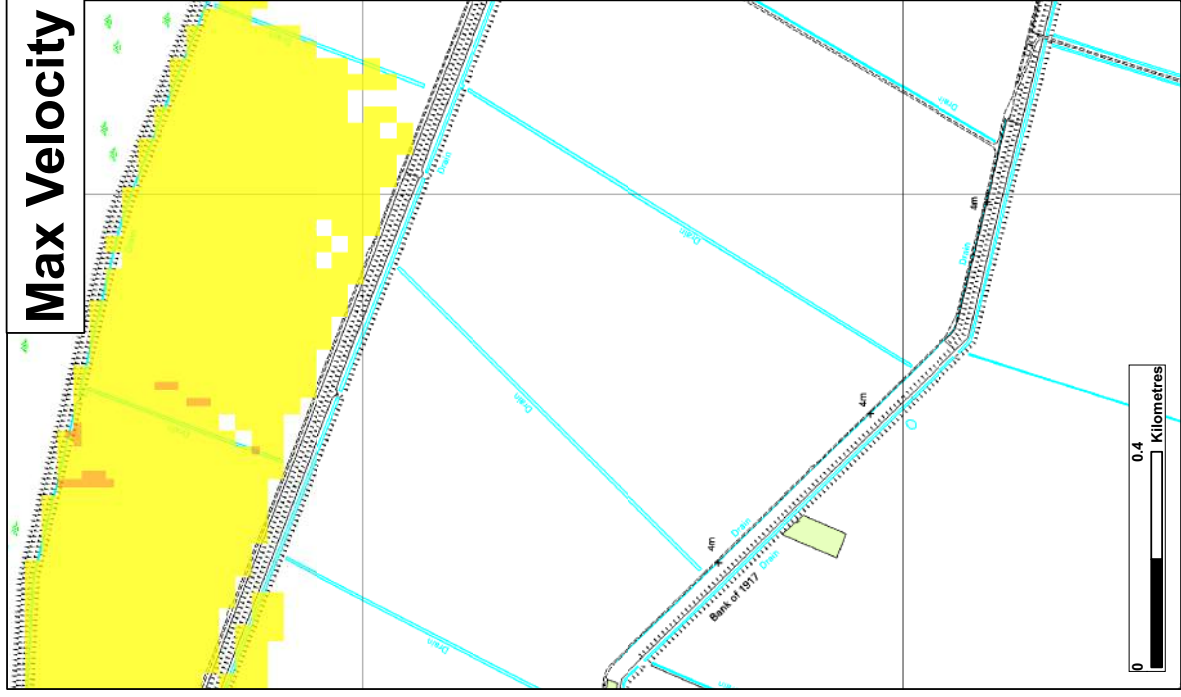
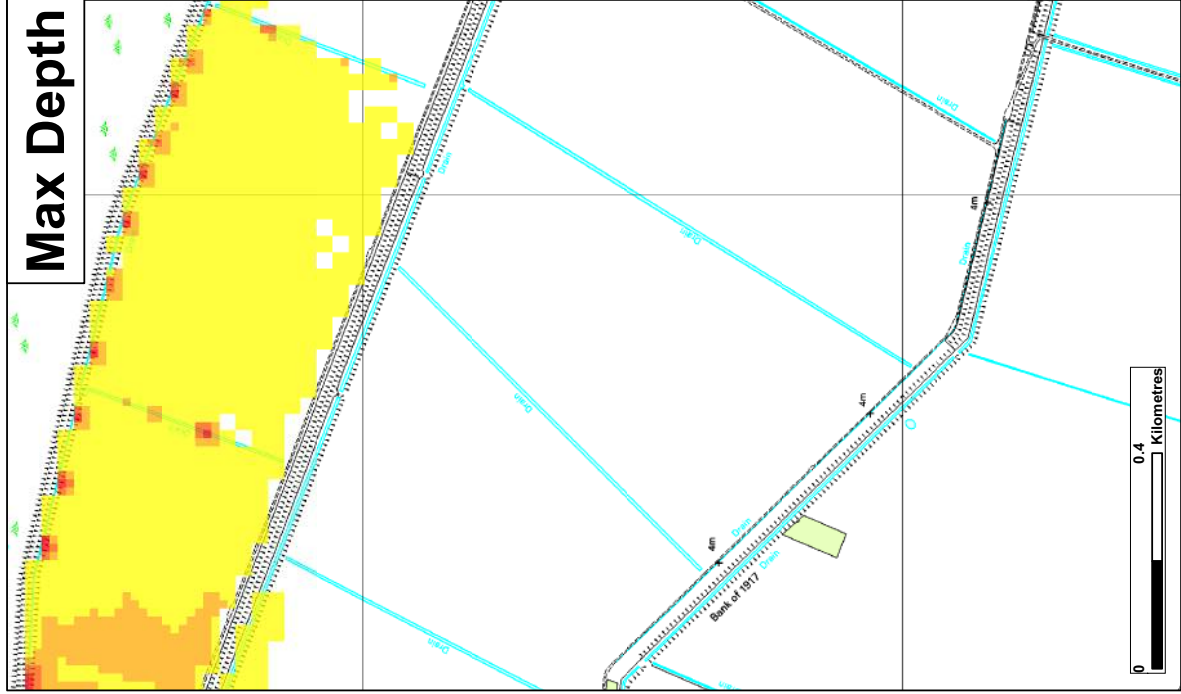
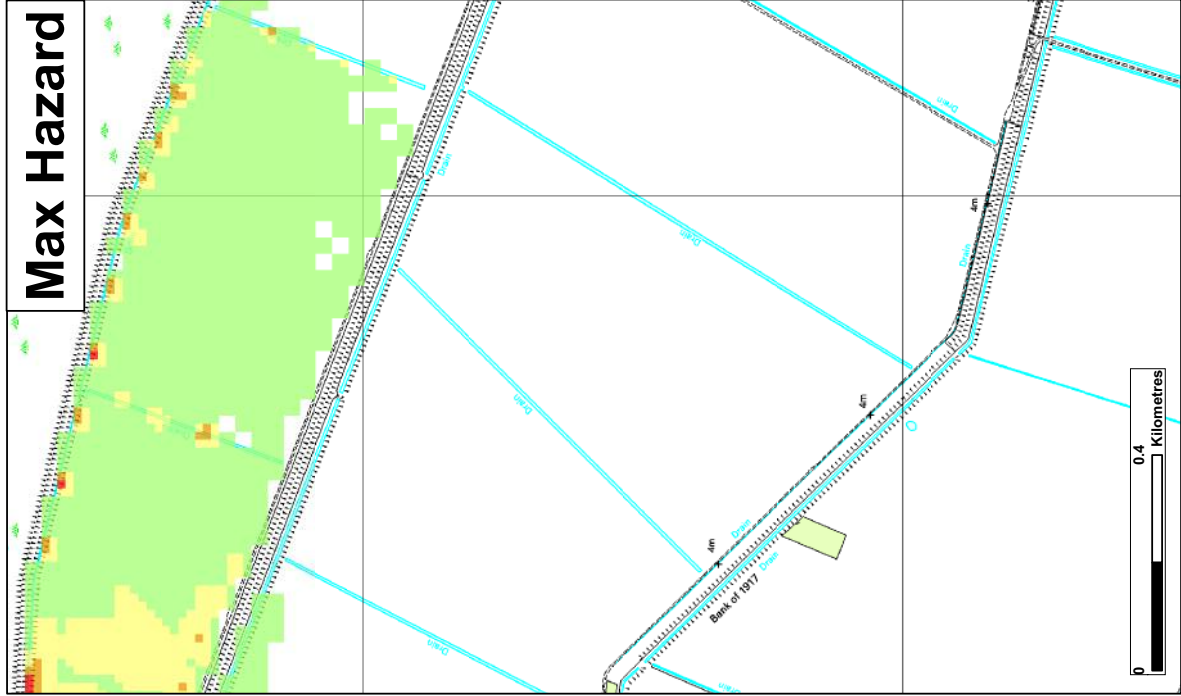
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Lincolnshire and Northamptonshire Tidal Overtopping Hazard Mapping

Map Centred on TF 50721 25570

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Date Printed	December 2014	Scenario year	2006	Scenario Annual Chance	0.1% (1 in 1000)
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The map is based on computer modelling of simulated overtopping of the main coastal defences for specific tidal scenarios. It does not include overtopping along the following tidal rivers which are currently being investigated: Witham Haven (upstream of Hobhole), and Welland (upstream of Fosdyke Bridge)

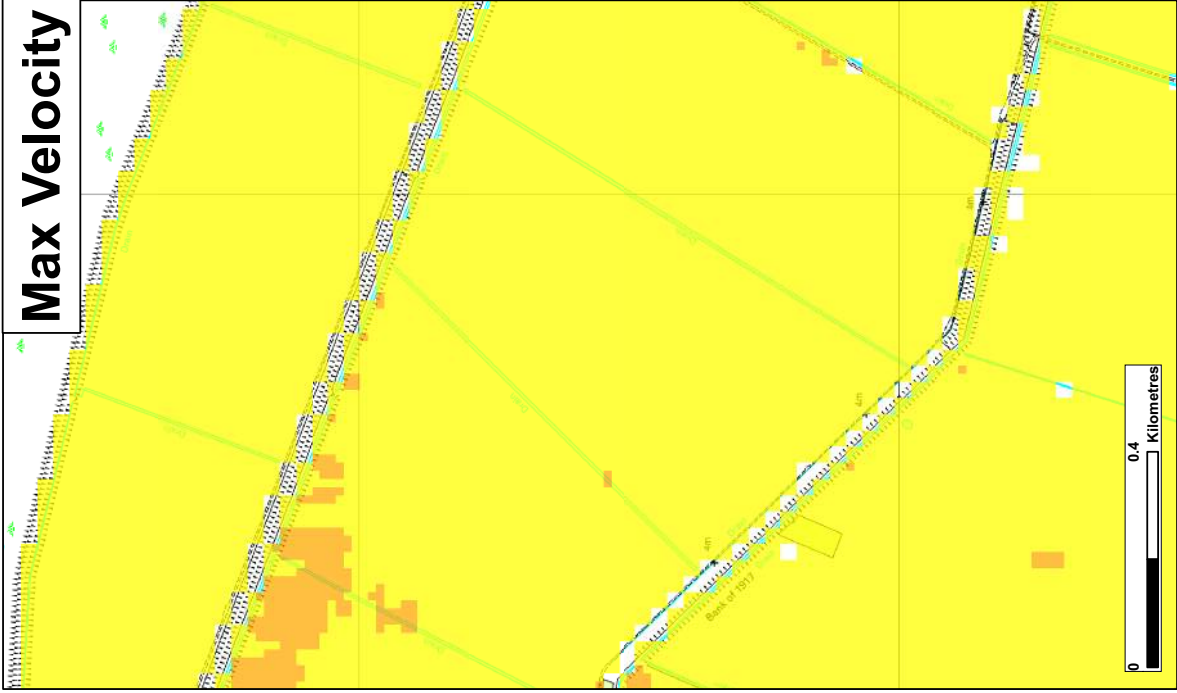
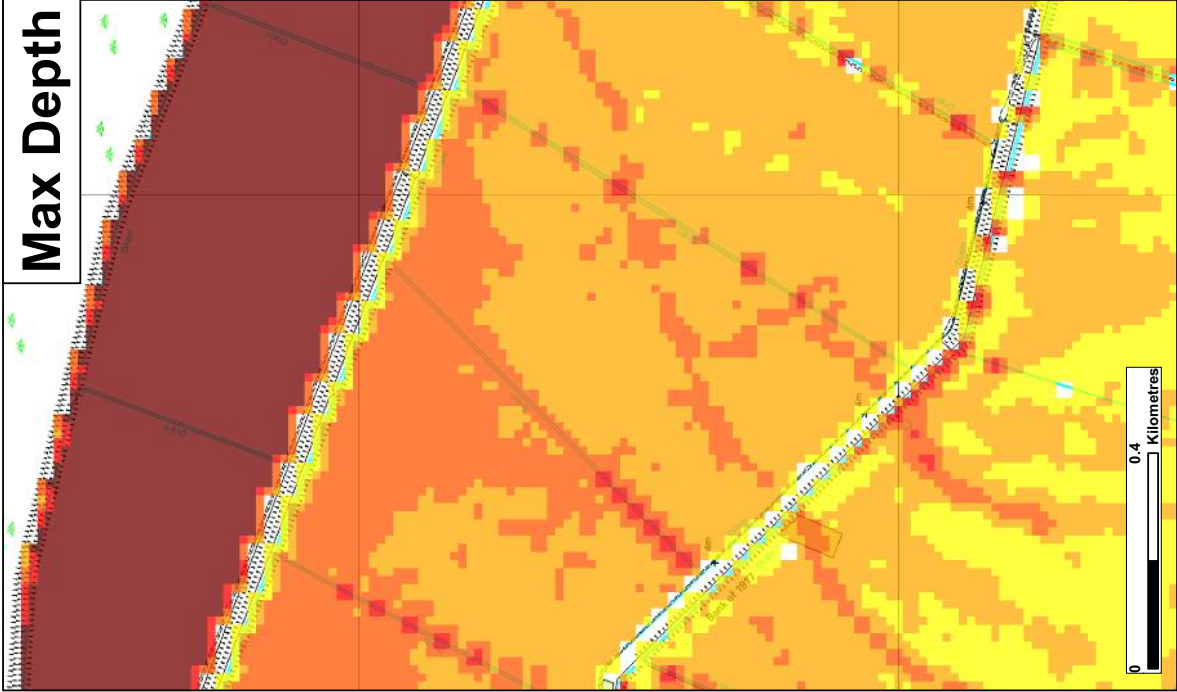
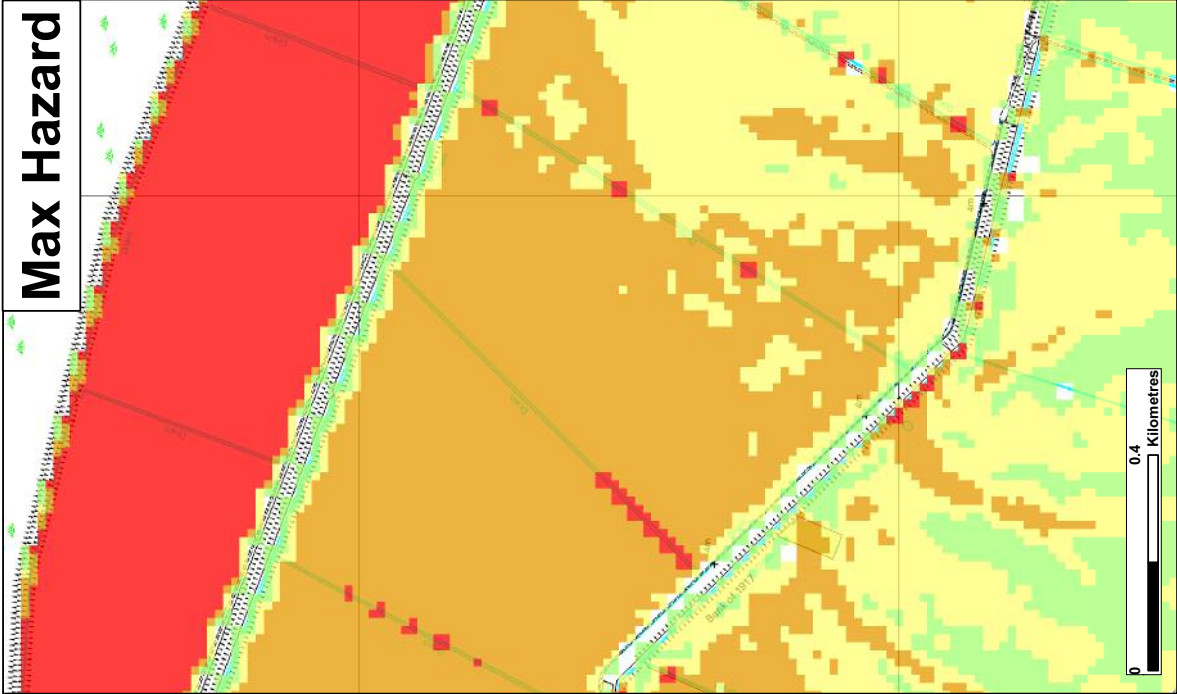
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Date Printed	December 2014	Scenario year	2115	Scenario Annual Chance	0.5% (1 in 200)
Max Depth (m)					
0 - 0.25 0.25 - 0.50 0.50 - 1.0 1.0 - 2.0 2.0 +					
Max Velocity (m/s)					
0 - 0.3 0.3 - 1.0 1.0 - 1.5 1.5 - 2.5 2.5 +					

The map is based on computer modelling of simulated overtopping of the main coastal defences for specific tidal scenarios. It does not include overtopping along the following tidal rivers which are currently being investigated: Witham Haven (upstream of Hobhole), and Welland (upstream of Fosdyke Bridge)

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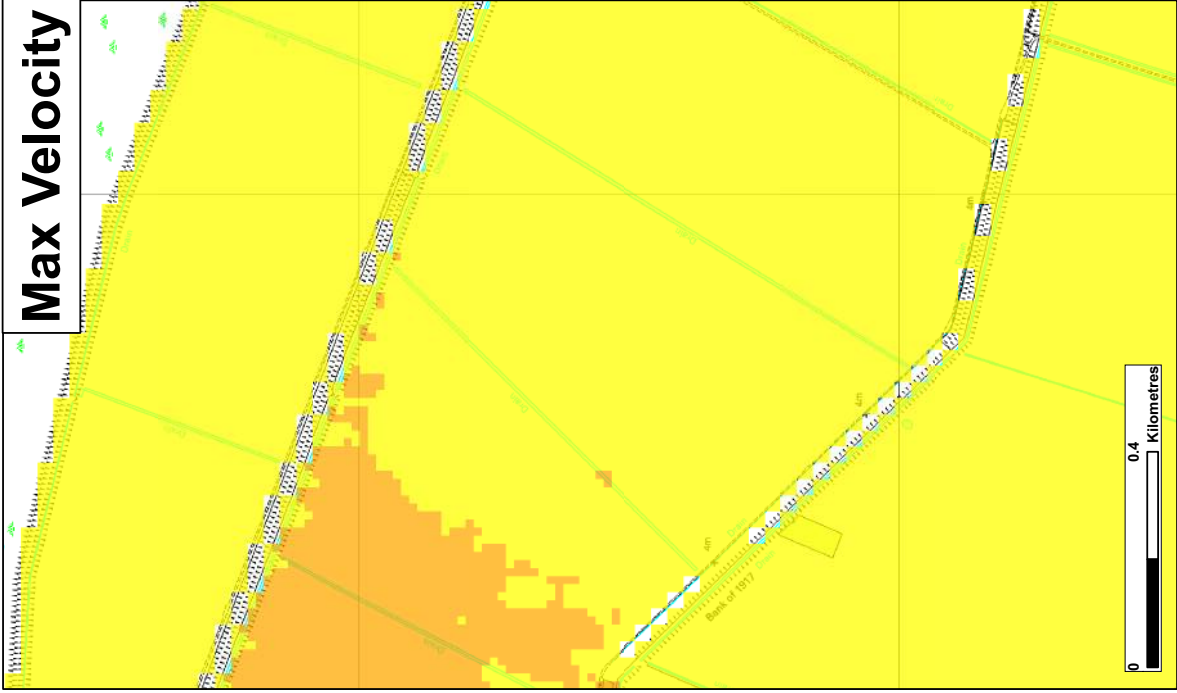
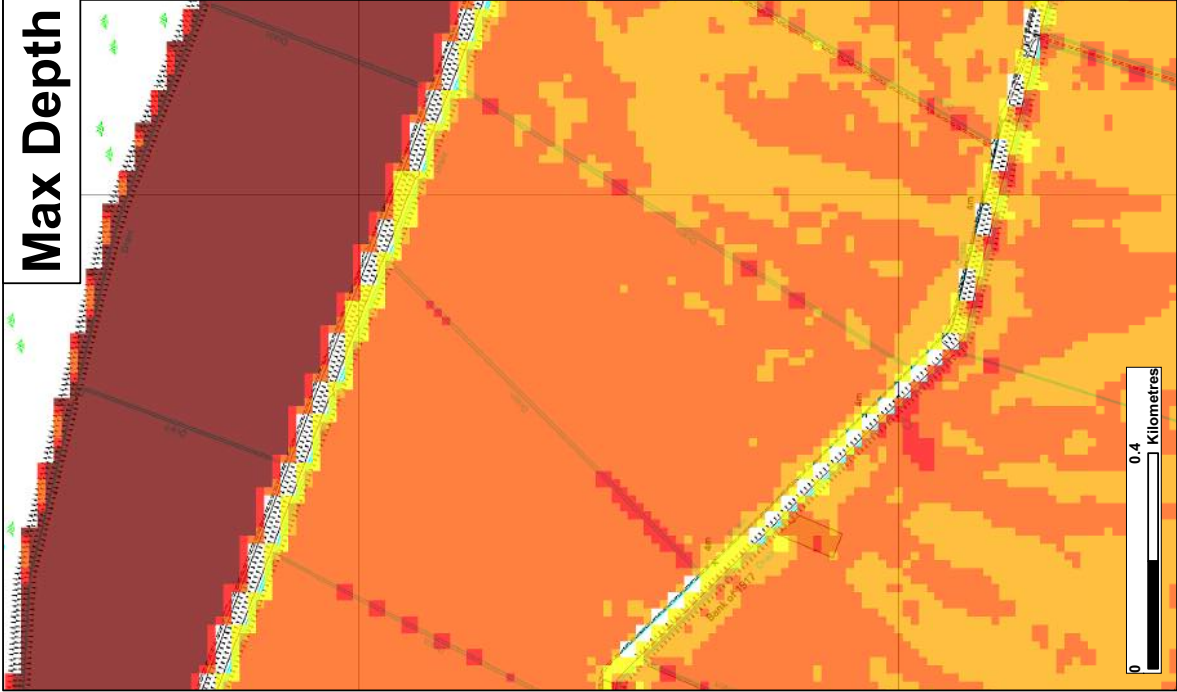
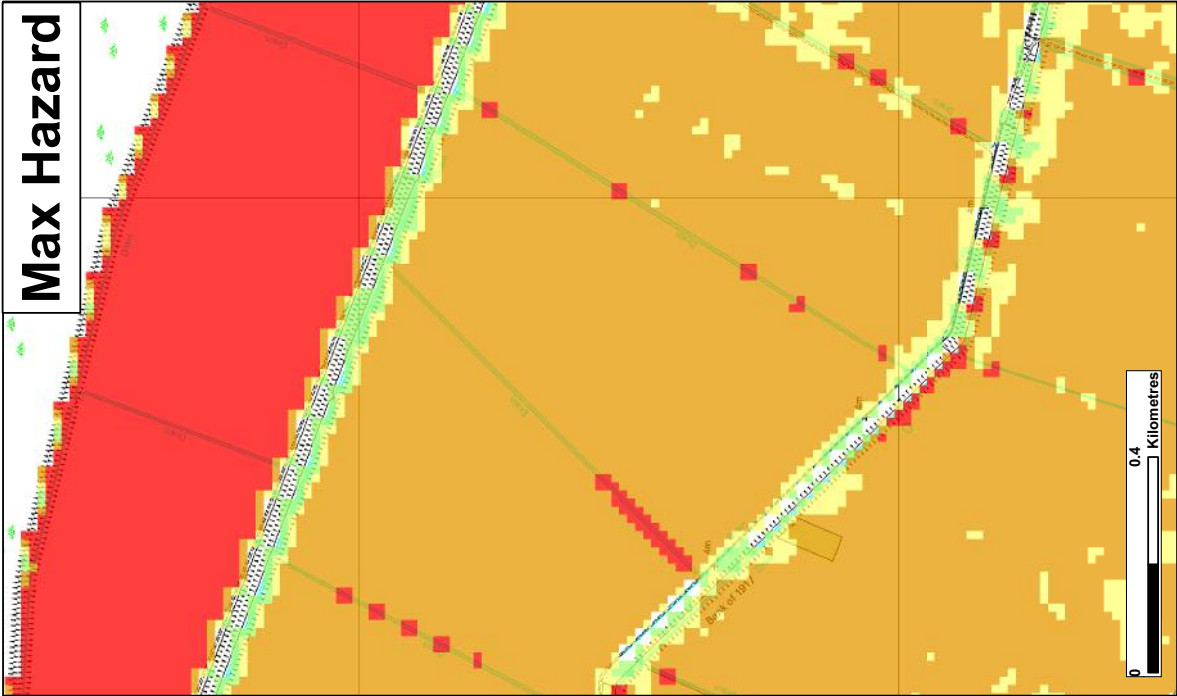
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**Lincolnshire and Northamptonshire
Tidal Overtopping Hazard
Mapping**

Map Centred on TF 50721 25570

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Date Printed	December 2014	Scenario year	2115	Scenario Annual Chance	0.1% (1 in 1000)
Max Hazard (Flood Risk to People : FD2320)					
Max Depth (m)					
Max Velocity (m/s)					

The map is based on computer modelling of simulated overtopping of the main coastal defences for specific tidal scenarios. It does not include overtopping along the following tidal rivers which are currently being investigated: Witham Haven (upstream of Hobhole), and Welland (upstream of Fosdyke Bridge)

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APPENDIX D

General Notes

RPS HEALTH, SAFETY & ENVIRONMENT

Flood Risk Desk Study Report

General Notes

The following notes should be read in conjunction with the report:

1. This report contains only that available factual data for the site, which was obtained from the sources, described in the text. These data were related to the site on the basis of the location information made available to RPS by the client.
2. The assessment of the site is based on information supplied by the client. Relevant information was also obtained from other sources.
3. The desk study information is not necessarily exhaustive and further information relevant to the site may be available from other sources.
4. The report reflects both the information provided to RPS in documents made available for review and the results of observations and consultations by RPS staff.
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